PhD COMPOSITION PORTFOLIO

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ABSTRACT

Composition is a process of applied research. In a portfolio of eight original pieces, the technical and aesthetic components of this process are investigated from the perspective of several theoretical precepts which both inform and underpin its creative strategy. Drawing on theories of intertextuality, composition is collocated within a broad current of thought in which ideas and material from pre-existing 'texts' across a variety of disciplines are utilised and explored to create new compositional 'texts'. This procedure is tested from several, key perspectives, characterised variously as: (i) problem-seeking, (ii) serendipitous, (iii) transgressive, and (iv) transcriptive. The first of these draws on John Dewey's notions of art as a form of creative problematisation. In the second, techniques are developed in which performance flexibility is balanced against structural exactitude, aided by a series of parametric tables that outline a range of variables across the different elements of musical sound. As a transgressive process, compositional procedure is informed by Viktor Shklovsky's theory of aesthetic defamiliarisation. Finally, as a form of transcription, the research draws on Ferruccio Busoni's observations about notation and its key transmutational role in manipulating and recasting musical ideas. By adopting an eclectic attitude towards materials and techniques, a compositional strategy is formulated which offers an alternative to the assumption that advancement in the field is inevitably shaped by an ineluctable, dialectical process. A polyvalent approach and direct interaction with materials, it is argued, are the important creative ingredients which present valuable and meaningful developments in compositional language, form and technique.

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Introduction
Towards a Research Focus

Compositional practice is the central focus of this PhD. It is a form of applied research. In a NAMHE (National Association for Music in Higher Education) conference paper — *Composition as Research* — Geoff Poole (2004, p.1) encapsulates the essential characteristics of composition as an academic discourse, describing it as: 'the applied branch of the study of music, carried out in its own language'. Composition is, in itself, a kind of commentary; and being coeval with, and operating in a variety of conditions and contexts, it possesses — as the musicologist Serge Lacasse (2000, pp. 35-58) observes — significant 'transtextual' possibilities. As applied research, it is in possession of a surprisingly broad purview. Not only is it connected to all other branches of academic music study — history, analysis, musicology, and performance — it also draws strongly on its inherent interdisciplinarity, engaging, often intimately, with the other performing arts. As Deryck Cooke (1963, p. 1) points out: 'Although all the arts are essentially autonomous, owing to the different material and techniques which they employ, there is clearly a kind of bond between them'. There are also epistemological links with other disciplines, including critical theory, literature, philosophy, politics and more. It is a rich network of associations. Composition, then, can relate to and feed on not only musics from other times and places but work across many disciplines. It forms its own, unique discourse, yet also engages in some way with the outside world, and the significance of its contribution can hinge on it being located within this wider field of contact. In this context, music becomes a commentary in sound on the ideas, perceptions and observations drawn from a diversity of sources.

The compositions in this portfolio satisfy this description. Located theoretically in the vicinity of the open work, they interrogate, in their own language, materials, ideas and perceptions found in a variety of disciplines: not only in the field of music, but also theatre, art, film, dance and philosophy. Ideas from one (or more) of these 'text(s)' are 'mined' to create new, compositional 'texts'. Lacasse identifies several different ingredients in this transtextual engagement: (i) 'intertextuality', in the form of quotation, allusion or simple copying; (ii) 'hypertextuality', in the manipulation and varied transformation of pre-existing materials; (iii) 'paratextuality', through titular allusion and transference of other extrinsic matter; and (iv) 'architextuality', in the referencing and signposting of various musical styles and genres. Tested and filtered through a portfolio of eight original pieces, then, this PhD explores the trans/para/inter and hypertextual aspects of my compositional practice, interrogated through a limited mixture of methodological means in the spirit of flexibility and exactitude. The following commentaries seek to provide an insight into this process.

Compositional Methodology

My procedure is one of discovery. Compositional research is located in the act of composing itself. Decisions about structure and technique, therefore, evolve indirectly out of the process of working with the materials, rather than by *a priori* imposition, in what might be described (in the words of the American philosopher John Dewey (1934, p. 78)) as an 'illustration of something familiar'. But, although the research has been undertaken in this spirit of open enquiry, establishing an inceptive philosophy and inchoative approach has been a necessary, preliminary step. The Russian film director Andrei Tarkovsky (1985, p. 36) felt it vitally important that any worker in the arts should, at the outset, establish a theoretical understanding of the ultimate aims of their work: 'Why does

it exist? Who needs it? What form should it take?' These commentaries, therefore, also raise some broader questions about the role of compositional practice in music research. From an empirical perspective, a variety of notions are explored about how compositions are made and what the act of composition might signify; and, to inform this discussion, a wide range of sources is invoked to contextualise the work within a broader creative memorandum.

The Compositions

The portfolio consists of eight pieces:

(1) ***Twelve Biomechanical Studies for Four Instruments*****:** (c. 12 mins.)

i. flute
ii. oboe
iii. bassoon
iv. viola

(2) ***Ariach all Gabbe Levena*****:** for viola and piano (c. 13 mins.)

(3) (a) ***Tilting Martha*****: *six dance sequences for a small ensemble*:** flute; alto flute; 2 percussion; harp; cello (c. 30 mins.)
(b) ***Dance Suite*** **on** ***Tilting Martha*** (same ensemble with extended percussion) (c. 35 mins.)

(4) ***Rehearsal for Extinct Polyphonies*****:** for a mixed ensemble of string trio and wind quartet (c. 20 mins.)

(5) (a) ***Desire Lines*****:** for trumpet and piano (without pianist) (c. 15 mins.)
(b) ***Desire Lines II*****:** version for trumpet and vibraphone (c. 15 mins.)

(6) ***'Each Through His Own Eyes'*****:** Three songs for soprano, flute and viola (c. 13 mins.)

Each one of these compositions evinces aspects of transtextual practice. The *Twelve Biomechanical Studies* and *Tilting Martha,* for example (see chapters 4 and 7 respectively), investigate interactions between the worlds of sound and vision, exploring the sorts of tensions that can arise when two temporal art forms that operate in different realms come together to share the same space. The *Dance Suite to Tilting Martha* (chapter 7) is offered as a comparative study, where the music is recast as a concert version with a purely musical narrative. With *A Rehearsal for Extinct Polyphonies* (chapter 6) an attempt is made to establish a creative distance, which provides an opportunity to explore questions about the language of atonality from the perspective of processes, materials and concepts that predate the advent of tonality. The title is adapted (paratextually) from the Brothers Quay puppet animation, *Rehearsals for Extinct Anatomies* (Quay, 1987). *Ariach all Gabbe Levena* (lit. *A Log Upon a Brick*, chapter 5) adopts a mixed, intertextual/hypertextual approach, exploring materials derived from non-western musical sources. A process emerges in which the instruments, each with its own defined character and material, develop independent trajectories towards a negotiated objective. *Desire Lines* (chapter 8) takes the premise of the solo and accompaniment as its point of departure, re-imagining that relationship by drawing on questions of performer interaction and the responsibilities that influence and determine the material and ultimate character of the final musical 'product'. These issues are re-examined in *Desire Lines II* (also chapter 8), which is reset for trumpet and vibraphone. The song setting, '*Each Through His Own Eyes'* (chapter 9), investigates the power of the written text. It is an interrogation of the kinds of images, subconscious associations and references that poetic language is capable of stimulating, filtered through the world of abstract sound. This piece also engages intertextually with material drawn from Japanese, Zen and Inuit sources.

Some Related Aspects of Compositional Process

One of the most fundamental objectives of the musical process, it might be argued, concerns the formulation of syntax: that is to say, the construction of coherent musical continuities — processing and managing materials to create an interesting or illuminating flow of events. This is contingent on a number of factors, but the ability to judge and characterise the material lies somewhere at its heart: it facilitates the task of uncovering, exploring and drawing out of the material interesting and potentially significant characteristics and relationships that may inhere within. The question is a fundamental one for compositional practice, and it has an active bearing on much procedure — not least of which is the formation of work structures. Yet, as a basic constraint, it inevitably precedes and underpins any research approach to composition. To establish a broader focus within which to explore this, therefore, the portfolio is framed and energised by four, further key points of investigation:

1. Composition as a 'problem-seeking' process
2. Composition as a transgressive process (of violating expectations)
3. Composition as a transcriptive process (of transforming ideas)
4. Composition as a serendipitous process (of unforeseen emergences)

These are not unrelated; each expresses the function of musical narrativity from a slightly different perspective. The first two emphasise epistemological concerns, informing compositional methodology; points three and four highlight the ontological, and engage with the issue of composition as a discourse. These ideas are amplified and discussed at greater length in chapter one.

Compositional Discourse and a Methodology for Reflective Commentary

If, as Poole states, music accounts for itself in its own language, what need is there for further explication?[1] There have been some interesting responses to this question. It is instructive (and amusing) to learn, for example, that on one occasion, when quizzed about the meaning of the *Eroica* Symphony, rather than offer a verbal explanation, Beethoven simply turned to the piano and played through its opening bars (Frindle, 2001, p. 15). In the field of analysis it is also noteworthy that Hans Keller (1994, pp. 126-128) abandoned written commentary altogether in favour of what he termed wordless 'functional analysis'— a representation, he argued, more closely allied to the ontology of the form. And, in the field of art, Paul Klee (1966, p. 9), in a lecture delivered at the opening of an exhibition of his work at the Museum in Jena in 1924, evinces similar unease about verbal expositions of his own work:

> Speaking here in the presence of my work, which should really express itself in its own language, I feel a little anxious as to whether I am justified in doing so and whether I shall be able to find the right approach (1966, p. 9).

Finding the 'right approach' is the crux of the matter. There are many potential dangers inherent in self-reflexive writing. Paul Hindemith (1961, p. iv) identifies an important one: 'Musicians producing words instead of notes are too easily apt to fall into [a] sometimes enticing…egotistic or pseudo-profound attitude'. Pierre Boulez (1991b, p. 15) (surprisingly, perhaps) also warns against such studied polemics: 'Enlightened manifestos can hardly claim to be objects of great delight; and as for professions of faith: their only purpose is to disabuse those who adopt them'. Such concerns are evident among practitioners across the arts. Tarkovsky (1985, p. 9) again, for example, expressed a strong mistrust of politico-analytical constructs to explain his work. They

[1]What musical 'language' is and what it may consist of are questions that have been addressed by many in the field of musicology, and it is touched on briefly in chapter three.

serve, he thought, to actively obscure the real purpose of his films: the 'direct, intimate effect on the audience'. And Susan Sontag, in her critique of the role of literary criticism, argues that hermeneutical analysis can also be misleading. Hermeneutical dogma, she says, has imposed upon art-appreciation a predisposition to search for often dubious concealed meanings. This trend, she states, is inherent in (and has been inherited from) the ancient Greek notion of *mimesis*, by which art is challenged to justify itself through theoretical interpretation[2]. She is highly critical of its assumptions and its applicability, believing it to be misplaced, artificial and detrimental to our understanding of the affective power of art:

> …interpretation amounts to the philistine refusal to leave the work of art alone. Real art has the capacity to make us nervous. By reducing the work of art to its content and then interpreting *that*, one tames the work of art. Interpretation makes art manageable, comformable [sic] (1967, p. 8).

Engaging with the reflective and analytical commentaries here, I have been mindful of the above concerns, and their spirit has informed my own approach to writing about the work. Producing 'words instead of notes' might, indeed, indicate a certain lack of confidence in allowing the notes to speak for themselves, but even Klee, for all his initial reticence, drew strength from the fact that by formulating the core concerns of his work into words it afforded him some benefit: to bring the details of his practice into sharper focus. In the first of his six Harvard lectures, Stravinsky offers a similar observation: by intelligently contemplating one's work—'…to discover its genesis, to note the relationship of things to each other, [and] to seek to throw light upon them'—a reflexive interest is served: 'To explain myself to you' he says, 'is also to explain myself to myself' (1947, p. 7).

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[2] It is an assumption that has also underpinned and been promoted through scriptural exegesis: where the extraction of the Biblical text's truth is thought possible only through a process of decoding rather than literal reading.

The field of musical analysis is awash with an ever-widening range of tools for engaging in such work-centred reflection and interpretation: from the descriptive methods of Donald F. Tovey (1937) to the pitch-class procedures of Allen Forte (1973), from the semiotic to the phenomenological and more besides. Many of these analytical strategies are restricted, it could be argued, by a seemingly myopic focus on what Jean-Jacques Nattiez (1987, p. ix) refers to as the work's 'immanent configurations' — its internal structural relationships. But (Sontag's hermeneutical critique aside) meaningful and relevant insights may not always be found in a composition's internal structures alone; it may not always reveal what is most fruitful in the compositional discovery, nor express what is most interesting about the work and about ourselves. As Nattiez says: 'The work's immanent configurations do not harbour the secrets of compositional processes or of perceptive behaviours'. A composition is not only constituted by the procedures that engender it (i.e. the acts of composition), but also by 'the procedures to which it gives rise: acts of interpretation and perception'.

When engaging in critical reflection here, therefore, a mixed methodology has been adopted. Composers do, indeed, deal in abstract structures, so avoiding formal analysis entirely would seem nothing short of perverse. In some of the analysis, therefore, brief reference is made to pitch-class structures where appropriate. At other times, a more direct, descriptive approach is employed. Comments on the structural aspects of the works seek to bring these formal relationships into sharper focus, throwing light upon the ideas and insights that have helped shape the development of my compositional research, style and technique. At times I have also adopted a phenomenological frame of mind, but, in drawing on Sontag's example, I try to avoid any attempt at spurious hermeneutical interpretation. All of the observations that are made should be entirely evident from the musical content. One source that has proved particularly helpful

in combining a phenomenological/work-centred approach is Lawrence Ferrara's article: *Phenomenology as a tool for musical analysis* (1984). The validity of this approach hinges on the principle that composition offers a kind of commentary that has a direct and personal meaning for us because it is in some way reflects our experiences — a life lived and the world observed. It is a point that Susanne Langer (1953, p. 226) argues with some confidence: 'That musical structures logically resemble certain dynamic patterns of human experience is a well-established fact'. Cast in a broader context, Umberto Eco characterises art as an 'epistemological metaphor' that inevitably reflects the social conditions out of which it emerges (1989, p. 87). But it is important not to confuse these symbolist and semiotic views with hermeneutical speculation. In the world of sound there is no insurmountable obfuscation because nothing is essentially hidden. A complete aural picture is always present to the listener: that is to say, aural 'objects' are not obscure-able in quite the same way as, say, visual objects. As Roger Scruton puts it, in music we are always presented with a 'God's-ear view' (1996, p. 13). This is a characteristic of sound that has important implications for composition. For one thing it makes manifest the possibility of a true plurality of dialogue within a single, unified sound-space. It also frees the listener, arguably, from any obligation to engage in hermeneutical 'data-mining', or to speculate over the existence of hidden (perhaps dubious) musical sub-texts. The content of music abides in its sonic state which divests it of any pretence towards concealed meaning. Being sensitive to the flow and logic of the musical events themselves is the key to meaningful engagement. It is this, surely, that establishes a direct commentary on the observed world.

Musical continuities are informed by, engage with, reference and reflect the continuities of the very life that is ours, and, to reiterate, it is this phenomenological fact that appears to render musical experience most meaningful for us. Illustrations of this point

may, of course, be drawn from across the arts. Responding to one of Tarkovsky's films, a correspondent wrote:

> Thank you for *Mirror*. My childhood was like that….Only how did you know about it?...The feeling of waiting for my mother to come back filled my entire soul….I felt for the first time in my life I was not alone (Tarkovsky, 1985, p. 10).

For Tarkovsky, phenomenological observations were a more useful test of meaningful engagement than the application of contentiously theoretical formulas. He was more appreciative of this type of personal, deeply felt response to his work, than he was of any theoretical constructs. Interpretation would appear to be a natural impulse for us, but it is so in a general sense, where significance is more meaningfully derived, not via theoretical constructs, but against the backdrop of real, lived experience. Indeed, as will be argued, if Heidegger's (2001, pp. 25-26) analysis is correct, interpretation precedes any possible comprehension of the observed world. To highlight just one example in support of his case, he reasons that in order for us to perceive sounds as abstractions or disembodied events we must adopt a very unnatural and peculiar frame of mind. We are, in other words, already always predisposed to extract something meaningful from sounds.

A Composer's Position Statement

Arnold Schoenberg, in one of his more open and encouraging pronouncements, declares that composers compose because they cannot help themselves — 'Creation to an artist should be as natural and inescapable as the growth of apples to an apple tree' (1946, p. 134). This is worth articulating because it establishes a critical *modus vivendi* which underpins a natural urge to participate in compositional work: an inherent delight in exploring the realm of sound, and of discovering new means and methods for engaging

with it. And when entering into this work something important is at stake. To quote Tarkovsky again: 'Art is a meta-language, with the help of which people try to communicate with one another; to impart information about themselves, and assimilate the experience of others' (1985, p. 40). And again: '…like science, [art] is a means of assimilating the world, an instrument of knowing it…' (1985, p. 37).

For it to remain meaningful and relevant, creative activity demands an attitude of sincerity. As Boulez says, '…the composer's situation is not altogether peaceful; problems arise all at once, and in a manner that brooks no delay' (1991b, p. 16). There is an ethical dimension to developing a consistency of approach and coherent aesthetic. However, such a condition is becoming increasingly difficult in an environment where the relevance of art is increasingly brought into question: where the propensity for diversion and the ethos of popular entertainment grows ever more powerful and influential in public life. This trend is troubling for many. Neil Postman, for example (former Professor of Communication and Arts Sciences at New York University) laments this disturbing and, as he sees it, degrading development:

> …all public discourse increasingly takes the form of entertainment. Our politics, religion, news, athletics, education and commerce have been transformed into congenial adjuncts of show business…The result is that we are a people on the verge of amusing ourselves to death (1987, p. 4).

What is, perhaps, most troubling for composition is that this situation contrives to anchor values and expectations in a way that effectively places constraints on potential responses. For another, it functions as a tool of aesthetic, commercial and, therefore, political control. Artistic activity that is confined by prevailing, populist parameters is weakened as a serious means for exploring genuine insights and new perspectives. An

art that seeks to conform is one that constricts the inquisitive spirit and acts to deaden rather than quicken open and sincere inquiry.

But there is also a converse danger. In his seminal text, *Art as Experience,* Dewey (1934, p. 65) draws an interesting distinction between artistic and artful acts. Art whose primary purpose is simply to resist conformity risks becoming entirely self-reflexive and insincere, where technique is advanced merely as a display of facility. Works that lose sight of their basic purpose to communicate are in danger of becoming eccentric acts of wilful self-determination empty of any meaningful role or function. Tarkovsky, again, speaks out against such introspective tendencies: 'Modern art has taken a wrong turn in abandoning the search for the meaning of existence in order to affirm the value of the individual for its own sake' (1985, p. 38). This question is explored later from the perspective of the relationship of music to potentially important, external referents.

The Ontology of Composition, its Borders and Boundaries

In recent years there has been a sustained assault both on the role of the author and the ontology of the 'work'. It is a critique that originated in the field of literary theory, with the writings of Roland Barthes (1977) and Michael Foucault (1969), but it has been adopted more recently by musicologists — Lydia Goehr (1995) and Michael Talbot (2000) among them — and applied to the notion of the composer and the 'musical work'. What is the role of the composer and what is the essential ontology of composition in the context of this critique? That a composer fulfils an authorial role in selecting materials and organising them into a series of personal musical observations is clear. And this holds true not only in traditional approaches to composition but for those dealing primarily in indeterminate structures and the 'open work'. (John Cage's

conceptions of indeterminate systems and frameworks are, after all, products of deliberate determination.) But for a composer, the 'work' concept is not ineluctably charged with such intractable, polemical connotations. Indeed, as a critique its premises seem somewhat abstract and academic. There are questions, it is true, about the procedure of delineating boundaries and partitions around which individual pieces are built and by which they proffer a work-like identity. But the process of setting constraints, of reducing the problem space within which to work, by selecting, restricting and delimiting content — as Stravinsky puts it 'to extricate the straight line of our operation from the tangle of possibilities…' (1947, p. 6) in creating a musical *mise en scène,* so to speak — is necessary, because it is by these means that the essential viewpoint of any creative act is articulated. And it reflects a metaphor for a fundamental truism of life: it is neither possible nor desirable to be 'all things to all men'. Lines must be drawn somewhere. Far from functioning as constraints, boundaries provide powerful tensions that serve to identify and energise the creative process, as I hope to demonstrate. Indeed, if nothing else, a composition that strives to break free from the boundaries that are imposed upon it represents, in itself, an act of life-affirming significance that vitalises creative purpose. The research in this portfolio, therefore, acknowledges the principle of constructed 'works' as discourses in sound. The restrictions imposed by structural frameworks are important constituents that establish necessary boundaries within and against which materials and ideas are made to interact, to reveal new and, hopefully, interesting relationships.

Compositional activity is a multivalency of possibilities; not only are aesthetic responses engaged, basic cognitive processes are frequently revealed through the compositional decisions that are made. These commentaries seek to unpick those personal aspects of the process, reviewing the discoveries and providing an account of

the creative insights that have emerged — again, not just for the reader, but also for myself. In so doing, I draw again on the writings of a variety of thinkers, composers and artists, whose ideas have a particular resonance, and whose work seems relevant and appropriate to my own.

Chapter One
Research Questions

As outlined in the introductory chapter, this research project explores the transtextual aspects of my compositional practice. A more detailed discussion of this will be found in the context of technique in chapter three and the commentaries that follow. This chapter examines four of the underlying characteristics that frame this practice:

1. Composition as a 'problem-seeking' process
2. Composition as a transgressive process
3. Composition as a transcriptive process
4. Composition as a serendipitous process

(1) Composition as a 'Problem-Seeking' Process

There is an accepted view that compositional process is essentially a problem-solving one. In an article on musical narrativity by Nattiez, Claude Lévi-Strauss is quoted as saying: 'It is inconceivable that there should be any musical work that does not start from a problem and tend towards its resolution…' (1990, p. 241). But this problem-solving model, it could be argued, is not a fundamental condition of musical form itself. It is, in fact, a notion that springs from a relatively recent, post-Renaissance ideal. As a feature of compositional style the problem-solving approach was refined at the end of the eighteenth century by composers such as Haydn, Mozart and Beethoven, as they worked their material through a gradual process of linear descent to cadential closure (Rosen, 1976, p. 34). There has, for some time, been little aesthetic obligation to continue this principle in compositional practice. There are many for whom the notion of non-resolution is emphatically championed. John Cage provides the most obvious example, but there are many others and from different disciplines. Umberto Eco (1989, pp. 1-23) in his seminal text *The Poetics of the Open Work*, written in 1959, offers a

counterpoint to the notion of resolution and closure, at least in respect of musical form. For him, multiplicity, ambiguity and plurality are the critical elements of a modernist outlook (Robey, 1989, p. viii). From a broader, more pragmatic, perspective, Dewey (1934, p. 27) approaches this issue by drawing a distinction between the fundamental precepts of the technological arts on the one hand against those of the creative arts on the other. Craft workers, he argues, aim quite properly to solve given problems as a natural consequence of their activities; but a worker in the aesthetic arts must seek to explore, find, or make problems, if their creative efforts are to be sincere and authentic. The urge to problematise is the catalyst, in other words, for the artistic impulse — challenging perceptions, throwing up questions, disturbing the peace — rather than seeking to establish or reinforce familiar or comforting solutions.

Essentially this is a question of methodology, and according to Dewey it is an unavoidably 'messy' process. For one thing, the way that reflective thought is worked out through a particular medium cannot be determined in advance. There are opposing views, of course. Hindemith, for example, characterises the creative vision figuratively as a 'flash of lightning', where the complete topology of a work is revealed to the composer in an epiphanic instant (1961, p. 61). But for Dewey this cannot be so. Imagination, he suggests, does not precede work in this way. 'The act of expression that constitutes a work of art is a construction in time, not an instantaneous emission' (1934, p. 67). And there is no clearly-defined line of progression, he argues, leading directly from experience, through ideas, into activity (p. 78). As acousmatic composer Horacio Vaggione (2001, p. 54) also affirms: 'the creation of musical situations emerges concretely out of an…interaction with the materials'. The process of gathering together and working on material is essential to the generation of ideas and the stimulation of the

imagination; the two go hand in hand. Stravinsky understood this as a deductive process:

> Usually when I set to work my goal is not definite. If I were asked what I wanted at this stage in the creative process, I would be hard pressed to say. But I should always give an exact answer when asked what I did *not* want. (1947, p. 69)

What appears to take place, according to Dewey, is a collaboration between the conscious and the subconscious, and in any authentic act of creativity an effective balance must be struck between the two: an imbalance of emotional input produces incoherent results; where there is a predominance of conscious manipulation the outcome is dry and mechanical. More critically, creative work that does not achieve the right balance in this cooperative venture, he claims, will simply result in either a studied act or (as already observed) an 'illustration of something familiar' (1934, p. 78). It is precisely through working with the materials of the form that problems are generated, explored, processed and digested.

These ideas have had a strong influence on my compositional methodology. Research carried out through the compositions has proceeded on the basis of a direct interaction with the materials rather than through studied constructions or preparatory plans. Indeed, the discovery of structures through exploration has been an important aspect of the research results. Working without the 'safety net' of pre-compositional structures demands a high level of trust in the process. Yet this approach makes more rational sense for practice-based, compositional research. As Michael Finnissy explains:

> For me composition is always a kind or research, an investigative process…so if I planned it exquisitely before I started, then composing would almost become redundant, because I would already know what was there…(Finnissy, 2012)

Many interesting questions emerge from the process of working in this way: what kind of structures and problem-seeking does the material allow? What intellectual tendencies does it encourage — what kind of discourse, what kind of 'conversation'? And, more generally, to what extent is it possible to explore a wider range of epistemological concerns through the medium of a particular set of sounds? These are some of the questions tackled in the chapters that follow.

(2) Composition as a Transgressive Process: Violating Expectations (as an Aesthetic Objective)

In an essay written in 1917 — *Art as Technique* — the Russian critic Viktor Shklovsky (1917, p.16) proposes a clear practical purpose for the arts. He suggests that it is the function of any poetic language to defamiliarise objects in order to violate expectations. His justification for this is based on a critique of the effects of industrialised society and a belief in the potential, ameliorative qualities of artistic language. In the modern world, he argues, the senses are inundated by a plethora of stimuli, to such an extent that perception itself suffers a damaging decline towards 'habitualisation' and 'automatisation'. According to this theory, our habitualised responses become ingrained and coalesce to form our individual world view: our *Weltanschauung* — habits of thinking, expectations and received wisdoms (Langer, 1957, p. 13). Eco (1989, p. 169) refers to these as our 'existential credentials', formed by our background, experiences and culture, which then harden into personal tastes. But, for Shklovsky, this process results in a degrading attenuation of perception. We can never retain the freshness of our initial experiences, he says, because, in order to survive, environmental pressures demand a precipitate assimilation of our surroundings. If sensory perceptions are prone to such habitualisation, sensitivity to the moment is lost; and this should be of great concern to us, because an awareness of, and receptivity to, the complex

interactions of the external world is an essential, life-enhancing necessity. This provides promising material, I would argue, for compositional research.

It is the role of art, Shklovsky continues, to renew sensitivity and refresh perceptions; this is achieved by a process of, what he terms, *Ostranenie* (lit. defamiliarisation). A number of techniques are employed in the arts to bring it about. It can be achieved by means of exaggeration and the recontextualisation of familiar objects. In association with the Russian Formalists, Shklovsky developed a set of ideals predicated on the conviction that it is the *art-ness* of an art object that establishes its essential character: that is to say, art is not so much about the content and quality of the material itself but the way in which it is used. This, according to his theory, enables habitual phenomena to be rendered more visible and transfers what is depicted onto a 'sphere of new perception':

> …art exists that one may recover the sensation of life…to impart the sensation of things as they are perceived and not as they are known. The technique of art is to make objects 'unfamiliar', to make forms difficult, to increase the difficulty and length of perception because the process of perception is an aesthetic end in itself and must be prolonged. Art is a way of experiencing the artfulness of an object; *the object is not important* (Shklovsky, 1917, p.16).

In the sphere of literature, it is the special use of the language that makes writing seem literary; the content of the text merely provides a situation for the manipulation of the material[3]. Artistic language, he maintains, deviates from the practical norms of everyday speech. But although it may lack an everyday purpose — and although works of art generally fulfil no practical goals in a material sense, it could be argued — it

[3] The extent to which objects are considered aesthetic, of course, also depends largely upon how they are framed and perceived. The Dadist artist Kurt Schwitters made his work from collections of discarded rubbish. By the same token, non-poetic language — technical or dialectal colloquialisms — can become poetic if placed into an aesthetic context. The British poet Roy Fisher (2005) uses fragments of posted letters as the basis for his poem *Paraphrases*, thereby framing common, everyday language within a poetic context (Stacey, 1989, p. 18).

nevertheless performs an important function: to make us *see differently* (Selden et al., 2005, p. 31). Shklovsky supports his thesis with examples drawn from English literature. He quotes a passage from *Tristram Shandy* to demonstrate how Laurence Stern (1997, p. 194) creates a state of defamiliarisation. Rather than employ a hackneyed phrase — 'he held his head in his hands' — Sterne goes to a good deal of trouble to spell out an habitual posture with an unusual, extended description:

> The palm of his right hand, as he fell upon the bed, receiving his forehead, and covering the greatest part of both his eyes, gently sunk down with his head (his elbow giving way backwards) till his nose touch'd the quilt…(Sterne, 1997, p. 194)

And by avoiding conventional expression in this way, the author encourages us to re-imagine this otherwise familiar image as though it were new. As Shklovsky maintains, this furnishes us with an enrichment of experience. Heidegger encapsulates this sensibility: 'In the vicinity of the work we [are] suddenly somewhere else than we usually tend to be' (2001, p. 35). And Wolfgang Iser corroborates this same view from a slightly broader standpoint:

> …Many works of art play about with those expectations formed by particular periods of [art] in the past. The expectations can be shattered, altered, surpassed, or deceived, so that [we are] confronted with something unexpected which necessitates a readjustment. If this does happen, the reader gains what Henry James called an 'enlargement of experience' (Iser, 1974, p. 58).

What practical implications might Shklovsky's ideas have for music? The notion of violating expectations is one that is well known and, in fact, frequently invoked in music, particularly in relation to works written from the end of the eighteenth century. Charles Rosen (1976, p. xviii) writes eloquently on this topic, but is eager to issue a caveat over its perceived applicability and effectiveness. The violation of musical expectations, he argues, is achievable from two different perspectives: internally or

externally. But, as he says, 'Simply to deviate from a standard form can count for a lot or for nothing at all, depending on the way it has been set up' And that:

> Following a norm or violating one has no value in itself. Only if the significance of the norm is understood and exploited does it make sense, and the classical way to convey an understanding of the norm is to make the music imply its existence and necessity (1976, p. xix).

Hans Keller makes a similar observation. In a discussion on music and communication he states that 'all art is, in fact, instead…[but] the instead has to be meaningfully related to that which it replaces and contradicts'(1994, p. 4) — the 'instead' to which he is referring is the set of technical deviations and transgressions that provide 'meaningfully related' alternatives to specific expectations within the norm. Leonard B. Meyer's (1956, pp. 25-26) theory of the inhibition of musical tendencies derives from the same conceptual stable. But each of these musical thinkers is theorising, essentially, about the same phenomenon — music's power to stimulate emotional responses from within the boundary of predictable likelihoods — and their ideas should not be confused with Shklovsky's. 'Inhibition' and 'violation', rightly understood, are quite different concepts. The former seeks to engender familiar emotional responses by using known techniques to prolong tension; an explicit appeal is made to cultural expectations and conventions in order to achieve a result. Shklovsky's concept of violation, conversely, expresses a more aggressive range of possibilities: it constitutes a flagrant breach — a total contravention of acknowledged codes — in order to bring about new experiences; it promises no mandate of familiarity, resolution or emotional release.

The distinction to be made, then, is between the inculcation of accustomed responses on the one hand against the creation of a set of possibilities for the formulation of entirely new responses on the other. By way of promoting receptivity to this latter, 'unknowing game,' Paul Klee offers some gentle encouragement:

> Cheer up! Value such country outings, which let you have a new point of view for once as well as a change of air, and transport you to a world, which by diverting you strengthens you. (1920, p. 5)

Such defamiliarising techniques should be used in the service of exploration and illumination, and perhaps another caveat is required if simplistic, crass, shock tactics are to be avoided in compositional work. In the first place, as Rosen implies, certain types of unfamiliar gesture inevitably lack sustainability or longevity. Once experienced by the listener they become known and familiar, and, therefore, liable to suffer the very fate Shklovsky is at such pains to expostulate against. Rosen asks some searching questions about the affect innovations of form have on the listener:

> Which listener? Obviously one who hears it for the first time. After that any listener will know that the exposition does not, in fact, return. Will the piece therefore be less effective at future performances? (1976, p. xviii)

Defamiliarising gestures are not always magic bullets for aesthetic efficacy.

In the second place, although Shklovsky's ideas are relevant in principle to all art forms, his theory is directed specifically at literature and theatre. The sphere of music is, to some extent, a special case, complicated by the fact that 'strangeness' is already present as a natural characteristic of the form. Not only does music lack semantic specificity, it is, essentially, a non-normative activity: a strange kind of stylisation, not to be confused with the everyday. It is surely one of the reasons St. Augustine encouraged the use of heightened speech (in the shape of plainsong) to avoid normalising, or rendering mundane, prayerful worship — in the propinquity of God one does not offer up one's voice in the mode of everyday communication. And, as Scruton points out, sound is essentially acousmatic in character; it possesses no dimensions analogous to physical space, therefore 'much that seems strange…can be traced to the strangeness of the

sound world itself' (1996, p. 16). Music has its own unique set of behaviours, it is inherently 'other'.

Musical uncertainties, ambiguities, deviations and discontinuities, which 'shatter, alter, surpass or deceive' expectations, are significant defamiliarising techniques in compositional practice. They are useful and have an important wider purpose, but, being only one aspect of technique, their use should be sensitively handled in the service of an investigation of material and be appropriate to the context of the work. These issues are revisited in later chapters in relation to the individual compositions.

(3) Composition as a Transcriptive Process

Composition translates everyday experience into the medium of sound — into a different mode of thinking. But by this mutation of material it is no different to any other form of expression. As Dewey (1934, p. 66) points out, giving vent to any experience or idea is essentially a form of translation: a migration from one medium to another. With music, however, there are numerous layers of transcription: from basic vibrations to sounds, from sounds to pitches and from pitches to music (Scruton, 2009, p. 47). The score introduces a further layer of transcription, where ideas in the medium of real or imagined sounds are re-formed into a visual text. In this process a channel of communication is set up, into which the obtrusion of 'noise' (interference) becomes inevitable. And whatever notions may be entertained about the preservation and purity of the original, nascent musical conception, composition is persistently and inescapably compromised and distorted by the nature of its process. This ontological condition throws into question any supposed objectivity and neutrality for the score. Ferruccio Busoni encapsulates it succinctly: 'every notation is, in itself, the transcription of an

abstract idea. The instant the pen seizes it, the idea loses its original form' (1911, p. 7). It also introduces an element of unpredictability in performance. As Cornelius Cardew (1961, p. 22) points out: '…the relation between musical score and performance cannot be determined' and that '…the indeterminacies of traditional notation have become to such an extent accepted, that it was forgotten that they existed, and of what sort they were'. In the plethora of transcriptions, processes and influences through which it passes, then, music is an inevitably 'dirty' art form. But this is not unconscionably pejorative: indeed, it can give rise to a creative ambiguity that can both energise the compositional process, and enhance the potency of a work. Klee recognised this same phenomenon in painting, and he takes a positive view of it: 'The creation of a work of art […] must of necessity […] be accompanied by distortion of the natural form. For, therein nature is reborn' (1966, p. 19).

Notation, then, is not simply the final stage in the making of a composition — not simply a means of creating a document of a reified form of the work — it plays a far more active, functional role. It can be used as an editing tool and an aid to manipulating and controlling the development of a composition. The act of notating, itself, can give rise to new ideas and material: in much the same way as the act of writing (texts, journal articles, papers, etc.) can often generate new connections and new avenues of thought. One does not approach the paper (or computer screen) with an exquisitely formed idea which then simply gets engraved. Notation can be an important aid to creativity and a useful compositional tool. The way in which musical ideas are notated — the spacing of the material on the page, the characterisation of that material, its spirit, the phrasing and layout of ideas, and so on — also has a powerful influence on the manner in which they are performed. A musical figure can be notated in a wide variety of ways. A four-note sequence, for example, can be expressed as crotchets, quavers or semiquavers, but (with

appropriate adjustments to the metronome markings) to all intents and purposes the essential content remains unchanged. However, crotchets are not quavers, and quavers are not semiquavers, and this has a significant impact on the musical conception; each should elicit different performative responses.

The various features of notation, then, possess an active and positive rather than a neutral or passive capability, and musical ideas and modes of expression are often communicated through the look and feel of the printed text. Two examples illustrate and support this point. The first is from the Beethoven's Piano Sonata no. 26, in E flat, op.81a (1980, p. 187) (Ex. 1.1)

Example. 1.1
Beethoven: Piano Sonata no. 26, in E flat, op. 81a. b. 33, Second movement. *Andante espressivo*.

[Image removed]

In the right hand Beethoven notates a series of demisemiquavers, hemidemi-semiquavers, and semi-hemidemisemiquavers (128th notes). It is interesting to note that the tempo marking for this passage is *Andante espressivo*. Why would the composer choose to employ these, rather than, say, crotchets, quavers and semiquavers? Is there an effective difference? Notwithstanding the historical custom of using short note values in slow music, a sense of space-time expansion is clearly communicated; that is to say, a more than generous supply of time is made available in which to accommodate such short and ostensibly quick note groupings. It has implications, perhaps, for the expressive largesse of the passage. In a second example —Beethoven's Piano Sonata no.16, in G major, op.31, no.1 (1980, p. 18) — a group of irrational rhythms is

presented: eleven notes in the right hand against six (twelve implied demisemiquavers) in the left. Apart from proving, perhaps, that rhythmic irrationals are not a recent development, it marks out a separation between two individual entities, each of which just happen to be occupying the same sound-space.

Example. 1.2
Beethoven: Piano Sonata no. 16, in G major, op.31, no. 1. Second movement. *Adagio grazioso*. b. 95.

[image removed]

The exigencies of notation and its translation into performance generate some fascinating questions for the composer. How, and in what ways, do the conventions of representation and performance affect or transform the original compositional ideas? As these ideas become 'fixed' in their score-based form, how are they modified, mutated or enriched by the transition? What is added and what is lost? Interesting variations and ambiguities creep into the spaces separating the different stages of composition-making, occupying the interstices, as it were, between: (i) the initial compositional idea; (ii) its representation in the score; (iii) the performer's translation and interpretation of the score; (iv) the resulting sound; and (v) the final audition (audience reception). Ambiguity is an inherent property of the tools of the musical trade, and because of it the totalising chimera of determinism is ineluctably evaded. These issues have been widely addressed by musicologists in recent years, particularly in relation to the discourse on authenticity, composer intentionality and the critique on the reification of the musical work [4]. But it is fascinating to consider, from the composer's perspective, the

[4] See: Talbot, M. (2000) The work-concept and composer-centredness. *In:* Talbot, Michael (ed.) *The musical work: reality or invention*. Liverpool: Liverpool University Press.

significance of these uncertainties and how they may be embraced and enfolded into the process as a means of enlivening and energising composition. Again, such issues are an important aspect of the research carried out here, and are raised again later in relation to specific works.

The transformation of musical ideas and materials from their original form into something new, something 'other', is one of the key creative factors in the compositional process, and the various methods employed in effecting it will be explored in greater detail in the chapter on technique.

(4) Composition as a Serendipitous Process

Uncertainties and accretions pertain at every stage in the creative process. Some composers have attempted to mitigate these tendencies. Stravinsky, for example, was entirely opposed to the idea of indeterminacy in any degree, either technical or performative: 'The least I ask of any artist is that which *he* has determined, *his* choices rather than those of his intermediary and collaborator…' (1972, p. 19). But in the production of a musical work and its final representation, as Roman Haubenstock-Ramati points out, it is never quite possible, as it is in painting, to preserve a 'frozen surface' (1965, p. 39). This notion has long been familiar to musicians. Indeed, it is a phenomenon characteristic of all performative activity. It is difficult, not to say impossible, for a performer to execute an act in precisely the same way twice. Persistent fluctuations in conditions and circumstances, both internal and external, dictate this, informing, often transforming, musical works. Each and every act remains forever unique. This has long been understood in its hermeneutical sense: that is to say, as

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Goehr, L. (1995) *The imaginary museum of musical works: an essay in the philosophy of music*. Oxford: Clarendon Press. Kivy, P. (1995) *Authenticities: philosophical reflections on musical performance*. Ithaca: Cornell University Press.

musical interpretation. And quite naturally so, says Busoni, since it is part of the 'buoyant, expansive nature' of the form. 'Artists play their own works differently at each repetition, remodel them on the spur of the moment, accelerate and retard, in a way which they could not indicate by signs…' in acknowledgement of the essential demands of musical creativity (1911, p. 8).

The resulting transience is part of music's core nature, and it establishes a critical instability in the form. It has attracted disdain from some (including, apparently, Leonardo da Vinci) and a belief in the permanence and supremacy of the arts of depiction (Vergo, 2005, p. 19). But the notion of existential mutability extends back to pre-Socratic Greek philosophy. Heraclitus observed, for example, that all is in a state of constant flux: that one, 'cannot step twice into the same stream' (Hussey, 1995, pp. 351–352). The resulting dialectic between permanence and impermanence, between accuracy and deviation from a norm in performance, is an element present in compositional procedure itself. As Iannis Xenakis points out: 'the problem encompassed by determinacy and indeterminacy is a permanent one in music, both for composition and also for performance' (1996, p. 143). The act of composing always holds surprises, and unforeseen, unplanned possibilities constantly emerge. Indeed, it is largely the purpose of this research to discover and document these.

To complete the picture, it may be worth considering the influence of the auditory on the serendipitous aspects of composition. In reception, listeners almost never remember *verbatim* what they hear: 'Not only does recall paraphrase the original, but it also contains many inferences about information not present in the original'(Sloboda, 1985, p. 57). Cognitive psychologists suggest that we do this in order to build an internal model to aid conception and memory. Our 'existential credentials' — our previous

knowledge and experience — are always brought to bear on what is registered. What the original message may intend, therefore, will always be altered and filtered through the sensibilities of those who perform and hear it.

Lying at the heart of this thesis and portfolio, then, is an investigation of all of the above interactions — composition as a problem seeking, transgressive, transformative, transient and serendipitous process — a study of compositional management and control in the organisation of material, against the free and spontaneous interplay of ideas. When faced with a series of compositional problems the response should be an open one: a voyage of discovery rather than of closure and resolution. Works are not obliged to resolve anything. Nor do they need to be closed systems, complete or neatly self-contained; as the Canadian novelist Michael Ondaatje (2004, p. 91) puts it 'the right ending is an open door you can't see too far out of'. Works can throw up questions rather than seek to provide answers: all of which articulates the main purpose of compositional research. But what is one trying to discover? What potential does the material have? What questions does it allow? Where does an interrogation of the material allow one to go? In this project an attempt is made to balance these questions and dispositions, remaining mindful of Dewey's warning about the pitfalls that could lead to 'studied acts' or 'illustrations of something familiar'.

Chapter Two
Compositional Approach and Methodology

The creative process is not a straightforward one. The details of a work of art cannot be pre-determined: they develop contingently in the act of working intimately with the materials. Nor can it be claimed that the urge to compose is born of a clearly defined, or perfectly understood, rational conviction. One is reminded, again, of Schoenberg's proclamation that: 'Creation to an artist should be as natural and inescapable as the growth of apples to an apple tree' (1946, p. 134). In their attempts to develop a robust research strategy, however, many musicologists, analysts and composers have been keen to adopt a positivist, universalising attitude towards their work. The urge to establish objective data has, until relatively recently, dictated research strategy, which has focused on establishing quasi-'scientific' principles to explain the nature of compositional progress, and the essential direction of its ontological and epistemological evolution and development. What emerges is a dual positivist/evolutionist outlook: objective methods leading to progress, leading to evolution. In a recent text on music theory — *Music Theory and Natural Order* — Daniel Chua (2001, p. 17) points out that 'music theory for about the last 400 years has tried to ground itself in nature…believing that nature can somehow validate its truths', and some composers have invoked this same formulation. Much of what Schoenberg himself had to say about the role of the composer betrays this positivist conviction; he charges music with a progressive, teleological imperative. For him, as also for Adorno (1973, pp. 5-7), an evolutionary process is at work, towards the fulfilment of which, composers, who seek to establish a serious claim to the profession, should be morally obliged to commit themselves. It is a task that should be approached in a robust and

methodical manner. The emancipation of the dissonance in itself was not enough for Schoenberg: the task needed to be organised properly, in a disciplined, scientific way.

The most unfortunate aspect of this attitude, perhaps, is the way in which it discourages any approach that might contradict its basic tenets. Schoenberg (and Adorno) considered regressive, for instance, any compositional technique that deviates from this sanctioned objective. Boulez encapsulates this neatly in an attack on period modernism: '…dodecaphonists, with the firm support of historical evolution, treat neo-classicism as a nostalgia for the past…' (1991b, p. 1). Here, and in other writings, Boulez seems to be invoking the Hegelian dialectic as an argument for the ineluctable progress of compositional style and technique (1991b, pp. 209-214). It is an attitude that fuelled the quasi-scientific project of the post WWII European avant-garde and American serial movements: the compositions of Milton Babbitt —the *Composition for Twelve Instruments* (1948), say — and the pitch-class analytical methodology of Allen Forte (1973) testify to this outlook. In post-WWII serialism, systems of arithmetical control were imposed on the full gamut of musical parameters in an attempt to erase personal preferences and habits of taste. It formed part of a general strategy designed to obliterate the past and to 'purify' and renew musical aesthetics — a strange throwback, perhaps, evocative of Pythagorean cosmogony (James, 1995, pp. 20-40).

Yet, although these evolutionary convictions have given rise to many fascinating and valuable works, they highlight some difficult questions. For one thing, evolutionary theory, as Chua implies, has often been appropriated as evidence for progress in a way that would have puzzled Darwin himself. As the philosopher Mary Midgley indicates, Darwin '…took trouble to point out sharply that he was sure natural selection was not the sole cause even of biological evolution, and he clearly never considered invoking it

anywhere else' (2004, p. xvii). Evolutionary processes, then, are not incontrovertibly apposite as a justification for compositional research. There is no dialectical goal to be achieved in a Hegelian sense. For another, the adoption of positivist assumptions, far from providing a means of escape from the thrall of tradition (as has been claimed) has, in fact, established a rigid tradition of its own: one entrenched in pseudo-scientific dogmas that constrict compositional technique and obstruct free, open exploration. Again, according to Midgley, the notions of objective truth embodied in the assumptions of positivism are, in any case, largely the result of an Enlightenment myth, which, if it gets 'out of hand…tend[s] to exalt the form over the substance of what is being said, the method over the aim of an activity, and precision of detail over completeness of cover' (2004, p. xiv). And what could be more important in compositional work than the substance of what it has to communicate, the 'completeness of cover', and the aim and scope of what it attempts to explore? It is not the purity of its methodology, surely. John Stuart Mill understood the dangers of adopting a rigid, mechanistic interpretation of human activity:

> Human nature is not a machine to be built after a model, and set to do exactly the work prescribed for it, but a tree, which requires to grow and develop itself on all sides, according to the tendency of the inward forces which make it a living thing (1859, p. 123).

Art and science offer different interpretations of the world. As Tarkovsky states: 'Art does not think logically, or formulate a logic of behaviour; it expresses its own postulate of faith' (1985, p. 41). A composer must be at liberty, surely, to explore the materials of the form intuitively, past and present, to use as many means as are available and appropriate to follow the creative process wherever it might lead.

Imposing systematic, positivist processes on compositional procedure confuses the aesthetic and epistemology of the form — a transgression, perhaps, of the medieval

Musica mundana/Musica instrumentalis divide: the former, Platonic and 'pure', the latter, worldly and 'corruptible' (Meyer-Baer, 1970, pp. 8-12). But it was never the intention that these two instantiations should occupy the same ontological space. Composition, grounded as it is in the world of everyday experience, is far from pure in its form and content. Indeed, it is open absolutely to life's 'impurities', and these are vital because they contribute to its meaning and significance. In his vision of creative art, Tarkovsky, again, asserts that by aspiring towards the beautiful, 'I am not for a moment suggesting that art should shun the "dirt" of the world. On the contrary!' (1985, p. 38). And, as Scruton points out: '[music's] object is not the underlying structure of things, but the revealed presence of the world' — not the unfathomable, Kantian 'thing in itself' (1996, p. 5), but the thing as it appears to us; our experience of it, with all of its attendant ambiguities and accretions. Roger Sessions, perhaps, draws nearer the truth with his more personal and pragmatic view of the tenor of compositional progress:

> …the musical ear is not a passive function, which simply registers or even […] merely draws patterns of tonal sensation, but is one which feels and thinks, which constantly seeks new relations and develops new resources… (Sessions, 1950, p. 36)

Critically, it is the applied nature of compositional practice that excludes a purely positivist *modus operandi*. Although coherent technical structures are an essential ingredient for creating 'an intelligent form of continuation in time'(Levinson, 2006, p. 214), many of the decisions taken in the heat of the compositional moment are free, exploratory, intuitive and spontaneous. As Xenakis points out: 'In art, as in science, creation is based on intuition much more than on rational elements, which come afterwards' (1996, p. 148). One thinks of Leibnitz's conception of musical appreciation as 'unconscious calculation' (1989, pp. 206-213). And, as was argued earlier, it is not always possible or desirable to determine the details of a project in advance of working; these tend to crystallise gradually as the material is tested and explored in practice. For

Stravinsky the 'phenomenon of music is nothing [if not] a phenomenon of speculation', and 'the basis of musical creation is a preliminary feeling out, a will moving in an abstract realm with the object of giving shape to something concrete,' (1947, p. 27). Vaggione makes the same point in a slightly different way:

> Musical processes...from the composer's point of view, are not situations 'out there' waiting to be discovered: they are rather to be composed (since they did not exist anywhere before being composed), and so they cannot be considered properly as modelling activities…(2001, p. 54)

Yet, nor are such decisions made entirely intuitively; there is a critical element in play. Ideas emerge, it is true, from the 'existential credentials' of our personal and contextual understandings, but they are also informed by a critical knowledge and awareness of the musical past, techniques, language, aesthetic interactions, and so on. As Vaggione again makes clear: 'Composers are concerned with the creation of musical situations emerging concretely out of a critical interaction with their materials' (2001, p. 54).

The methodology adopted in this research project is informed, therefore, by two underlying assumptions:

(1) Compositional research offers a 'thick description' (Geertz, 2003, p. 143) of anecdotal evidence, and is not, therefore, best served by a purely positivist research attitude. Nonetheless, it remains valid and fruitful to attempt to establish a certain objective distance, to provide some clarity, and to exercise an essential, qualitative critique.

(2) Music is, itself, a kind of commentary that grows out of extrinsic contexts, and therefore has important referential relevance; although not strictly representational, music is, nevertheless, immersed in the extrinsic world, and (without fear of ontological contradiction) engages isomorphically with it.

What follows is an investigation of some of the theoretical issues surrounding these two assumptions, before moving on to explore their implications for compositional practice.

Charting the Compositional Process

John Sloboda (1985, pp. 102-103) suggests three avenues of approach in tracing and pinpointing the specifics of a compositional process: (i) study of sketches, notebooks, and scribblings, which can indicate how a work has evolved through the sequence of changes made; (ii) what composers actually say about their compositional process; (iii) empirical observation. Meyer characterises the role of critical musical analysis as an attempt to 'understand and explain the choices made by a composer in a particular work', and that to do so meaningfully one must 'be able to estimate …what the probable consequences of alternative decisions would be' (1973, p. 18). Some empirical studies have been attempted (Reitman, 1965, pp. 167-169), but these are rare, and, in any case, offer the least practicable approach in the context of self-reflective analysis and commentary. Stages (i) and (ii) however, are more apposite: the second in particular — what composers say — constitutes, effectively, the substance of this thesis.

The accuracy of what a composer might have to say about his or her work, however, is not always guaranteed. As Dewey (1934, pp. 74-76) suggests, the creative process is a balance of conscious and subconscious elements, and the latter, by definition, is difficult, if not impossible, to access and comment upon with any degree of clarity. One problem, therefore, in analysing and recording compositional procedure, is isolating and identifying the full panoply of experiences and lines of thought that lead to specific compositional decisions. A more workable methodology might be to provide not the minutiae of specific responses — which can be misleading, skewed, or half-

remembered — but observations of a more general kind. In the throes of production, it is the evolving aim of the work that is primarily held in mind, which, as Tarkovsy says: 'You have to…keep before you, like the apple of your eye, all the time you are working' (1985, p. 60).

The Referential and Extrinsic Possibilities of Music

When thinking about music as a kind of commentary, we are immediately confronted by the question of meaning and signification in compositional discourse. It is a problematic area, full of potential pitfalls, and has been much debated. How can music, as an abstract, non-representational art form, establish analogical, transtextual relationships with external phenomena? If music can be said to contain meaning, how is it expressed and to what does it make reference? Scruton argues that sounds are a primary occurrence in the lives of rational human beings, and, as such, they have the potential for signification because 'every sound *intentionally* made is instinctively taken as an attempt to communicate' (1996, p. 18). Some have taken this idea even further. The composer Brian Elias (1989, p. 225), for example, declares that 'music comes from the voice, from the need to make utterances and the need to make these sounds understood, sharing the same source as language itself'. Dewey (1934, p. 110), also, maintains that art objects are expressive, they communicate something, and, in so doing, constitute a form of language. But this raises a number of questions: what, precisely, does music communicate, what does it express, and of what does the language consist? Is music capable of conveying semantic content, or is it simply a '…closed sub-system with no essential links to other cognitive domains'(Sloboda, 1985, p. 59)? Does our engagement with music operate on the purely abstract level as a 'separate species of psychological activity for which unique modes of representation have been developed'

(Sloboda, 1985, p. 58), or does it — as implied in the arguments of Heidegger, Langer, Stockhausen and others — possess a phenomenological grounding that justifies our search for, and perception of, extrinsic associations in the sounds? Do we listen to music for its expressive content, or simply to be cognitively engaged? The evidence seems complex and varied.

As Poole indicates, musical communication resides in its own, self-contained discourse, with an intrinsic language that proceeds on the basis of its own specific epistemological attitudes and assumptions. It has a unique role, not expressible by any other art form. This is its true grounding. And it is important, as Postman points out, never to deviate from this authentic grounding, because one cannot confuse the epistemology of a discipline without degrading its discourse (1987, pp. 16-31). 'If one is to work in the full consciousness of what one is doing', says Tarkovsky, it is not possible to do so 'without recognising the laws of one's own art form' (1985, p. 62). From this perspective, the language and significance of composition must be confined to, and circumscribed by, purely sonic events and relationships. It is because of this, Pierre Schaeffer argues, that it is possible to engage with sound in its disembodied state — that is, as an acousmatic experience (2004, pp. 76-81). And, as Scruton points out, this is inevitably so because the world of sound is inherently 'other': metaphysically separated from us, containing events and processes devoid of topology or physical substance (1996, pp. 16-18). A sound event for Scruton is a 'pure event' (1996, p. 12). Busoni notes that music occupies its own unique sphere, because: '[it] knows no law of gravitation. It is well-nigh incorporeal. Its material is transparent. It is sonorous air. It is almost Nature herself' (1911, p. 2).

Indeed, there are those for whom music has neither expressive nor semantic possibilities. Stravinsky is one of these. His much-quoted declaration that '…music is, by its very nature, essentially powerless to express anything at all, whether a feeling, an attitude of mind, or psychological mood, a phenomenon of nature, etc…' is well known (1963, p. 53). Although his intentions may have been polemical, this statement is regarded as an important one, and it demands closer examination. Whether consciously or not, he appears to be invoking the Heideggerian notion of the 'thingly character' of the artwork (Heidegger, 2001, p. 21). He seems to be insisting that music's internal form is its only real or meaningful constituent: '…construction, once completed…order has been attained, and there is nothing more to be said' (Stravinsky, 1936, p. 92). But this is contestable. In the first place (as already noted), perceiving basic sounds as pure sonic events, Heidegger suggests, requires us to adopt a very artificial and complicated frame of mind: 'In order to hear a bare sound we have to listen away from things, divert our ear from them, listen abstractly' (2001, pp. 25-26). But empirically, in the normal course of experience, sounds hold an unusual significance for us. They are located in, and emerge out of, the environment we inhabit, and so inevitably possess a context. Heidegger's theory of *Dasein* is predicated on the notion that all 'being' is situated, belonging to a 'covert throng of a surrounding into which [it is] linked'(Heidegger, 1962, p. 43). Consequently, in everyday life, we never hear *just* sounds (i.e. de-contextualised) — not simply 'white noise', for example, but the storm whistling down the chimney; not just percussive clangour, but the door, as it slams shut. We hear something *in* the sounds. We seem to construct relationships from them, metaphorically expedient and highly interpretative though these may be. The world of sound seems to reach out into a broader field of knowing and understanding. Scruton's 'pure event' may, indeed, form the basic material from which musical discourse is constructed, but to hear basic sounds as pitches, with properties that relate to our own phenomenological

state — with spatial possibilities of 'up' and 'down' — is, in itself, a figurative interpretation of basic sound. It is bound up with a presumption of intentionality and a complex of extrinsic associations that we are unable to ignore: they colour and inform our listening. The referential properties of music may not make direct or specific extrinsic representations, but they offer perceived representations that are filtered and processed through our existential credentials.

In respect of the ontology of the artwork itself, Heidegger goes on to argue, '[it] is something else over and above the thingly element'. Indeed, the mere presence of the art 'thing', he suggests — the made object — constitutes the very least of what art is: 'It seems almost as though the thingly element in the art work is like the substructure into and upon which the other, authentic element is built' (Heidegger, 2001, p. 20). Sloboda agrees with this: '…I believe that the available evidence forces us to accept that there is some "leakage". Musical experience is translated into other representational modes' (1985, p. 59). In a formulation that has important connotations for composition, he suggests three categories of external representation: (1) direct, explicit, extra-musical phenomena by means of sound *mimicry* — birdcalls, trumpet fanfares, etc.; (2) emotional representation; (3) metaphors that point towards life experiences, cognitive states, etc. The first of these, and, perhaps, the most problematic mode of representation, centres on the concept of imitation — the creation of a copy. It is a well-rehearsed argument, originating with the ancient Greeks. Plato takes a dim view of it, characterising it as a pale, tertiary kind of reality with little value, serving only to divert us from the perception of ultimate truth. From a musical perspective imitative representations are often seen as facile, cheap attempts to conjure up naïve extrinsic images, and, consequently, are often avoided in composition. Plato's pejorative impression, however, is revised and strengthened in Aristotle's *Poetics* (Gassner, 1951,

pp. xxxvii-lxxi). The true function of art, he reasons — and, to a large extent, its essential purpose — does, indeed, lie in its reflection of nature, but it is far from being an anemic kind of imitation. On the contrary, it has a powerful purpose, which is to reflect *our* nature: our experiences, impressions, characteristics, and so on, through which we learn about ourselves and grow — a process of empathy and catharsis, as we engage with the dramatic predicament presented in the work.

Sloboda's second category — emotional representation — although theoretically more involved, is, nevertheless, a musical property that constitutes a truism for most. From among the seminal texts that deal with this topic, those of Eduard Hanslick (1986) and Meyer (1956) are, perhaps, best known. Hanslick maintains that, '[although] the representation of a *specific* feeling or emotional state is not at all among the characteristic powers of music'(1986, p. 9) it nevertheless has the capacity to stimulate our cognitive states, and in this sense, can influence our decision to acquiesce in imaginative and emotional engagement. Meyer, as we have seen, has developed a sophisticated theory for music as a basic language of emotion, founded on prolongation of tensions and the thwarting of expectations. Cooke (1963, pp. 34-112) has also developed an extensive theory of emotional representation for music, but, unlike Meyer, he bases his understanding on the innate properties of tonality and the pitch relations contained in specific melodic figures. The difficulty with many theories of emotional signification is that they specifically target diatonic music; consequently they have little to offer musical styles that are not located in a language of tonality. Empirical experiments conducted to test Cooke's theories (Gabriel, 1978, pp. 13-20) suggest that it is the general melodic contour that establishes representational significance, rather than specific melodic patterns and intervals as such. This is an important distinction, and it opens up Cooke's ideas to non-tonal musical structures and gestures.

Sloboda argues that 'Once we accept the general idea of analogical relationships between music and extra-musical domains…the possibility for other ways of expressing meaning are immense' (1985, p. 64). One of these is found in his third category of representation, which is, perhaps, the most potent. It is one that is supported by a number of thinkers. Heidegger, again, is among them. The 'something else', the 'authentic element' of an artwork that he refers to (above) is, in fact, allegory: the expression, by means of symbolic figures and actions, basic truths or generalizations about human existence.

> The artwork is, to be sure, a thing that is made, but it says something other than the mere thing itself is… The work makes public something other than itself; it manifests something other; it is an allegory. In the work of art something other is brought together with the thing that is made…The work is a symbol (2001, p. 19).

Langer (1957, pp. 204-245) insists upon this symbolic signification in art. Music is meaning couched in symbolism; in this sense it is not so different from language. With language, semantic content is derived from the representations and associations attached to its signs. The same could be said of music, the distinction being that music communicates in metaphors; it occupies a space between the semiotic and the semantic, a space that is saturated with a richness of metaphorical meaning. Such content may be, and frequently is, expressed in words, but it loses much in the translation. Nattiez argues that communication is possible through abstract sound because 'music is capable of three major types of extrinsic referral: the spatio-temporal, the kinetic and the affective' (1990, p. 243). The first two of these act as important metaphoric indicators, capable of suggesting associations derived from the ebb and flow of life. They are present for us as basic energies, reflective of much of our experience. Both Langer (1953) and Meyer (1956) hold that music works as an affective force because its 'structures logically resemble certain dynamic patterns of human experience' (Langer,

1957, p. 226). Dewey proffers some important insights into the nature of the experiential in art from a pragmatist's perspective. For him the object of all aesthetic practices — the raw materials from which art it is made — is the primary stuff of human experience itself: '…biological commonplaces…reach to the roots of the aesthetic in experience' (1934, p. 13). The end products of any artistic activity are contingent on the reflective working-through of those experiences. Genuine aesthetic outcomes do not take the form of direct responses, however, which he argues constitute nothing so much as unprocessed impulsions that merely dissipate energy to no real advantage. A genuine act of expression requires the maturation of an experience through time, reflection and transposition into a new medium (1934, pp. 63-64). In a foreword to Robin Maconie's series of analytical texts on his works, Stockhausen expresses this 'mysterious' aspect of extra-musical experience:

> …all the thoughts and dreams and impressions and visions and actions which…music arouses in its hearers, all these, no less, add up to the meaning of this music — something which must always remain largely a mystery, never totally to be comprehended by a single individual…the resonance is different in every person. (Maconie, 1990, p. v)

Composition, it appears, constitutes a metaphorical reflection on the nature of those phenomena it seeks to address, uniquely interpreted and reinterpreted by the composer, performer and listener in accordance with their own lights.

There are yet more analogical possibilities for music. Byron Almén (2008, p. 31) believes that temporal cultural artefacts are eminently capable of reflecting not only human actions but social dynamics too:

> …by observing changes in the hierarchical relationships between musical units, we are also making connections with other temporal phenomena that exhibit analogous changes. Since such phenomena include personal and social interactions and psychological processes of development, narrative acts as a potent link to important aspects of human experience.

However intangible it may seem, music possesses an extrinsic meaning for us. As a form of communication it is immersed in a potential network of multiple, contextual, analogical, extra-musical possibilities, and appears capable of engaging— albeit indirectly, non-specifically and interpretatively— with many of life's energies, kinetics, vicissitudes, struggles, joys and inanities. It is important, however — at least from an aesthetic standpoint — to avoid the parallel mapping of experience onto specific sound events: the results of this would amount to the most banal and naïve kind of mimesis. Nevertheless, music does appear to possess interpretative referential aspects, because again, invoking the argument of *Dasein*, how can it not? 'Being there' inculcates in the composer a natural propensity to engage with, and be energised by, issues arising from the wider world. Not only can such interactions provide the raw materials for approximate musical correlates, extrinsic associations can function as catalysts, generating and stimulating ideas for investigation provided these are translated coherently into the epistemology of the medium.

Developing a Methodology for Compositional Practice

In the initial stages of this PhD a positivist attitude was adopted towards compositional methodology. Specific research objectives were identified and formulated in a structured proposal. In light of the foregoing research, however, this approach was reconfigured and supplanted by a working method in which compositional processes and structures were left open to enquiry. In the absence of a pre-established, formal tradition of pitch-hierarchy, compositional work is most effectively conducted on the basis of experimentation: manipulating and juxtaposing material in order to uncover the scope of its potential. But, as indicated above, this process is not without critical rigour. Indeed it demands a high degree of analytical thought, since, in implementing it, the

composer is continually called upon to make judgments, evaluations and choices from among a multiplicity of available possibilities. The composer is necessarily a critic, as Cone (2003, p. 2) puts it, since such judgements and choices imply the critique of those possibilities not pursued. However, the assumption that critical analysis rests on a purely objective foundation has long been challenged. Heidegger, among others, suggests that the very acts of perception and observation are only possible as a result of subjective experience and enculturation. It is not possible to perceive what is not already conceivable. What seems important is the way in which composition can 'direct a light' on these processes, and to make a space in which fresh perspectives become possible. Creative work can provide an opportunity for unmasking those assumptions and attitudes: what is perceived; how is it critiqued; how is it best expressed?

Throughout this project, then, a largely phenomenological approach is adopted, which engages with composition as an open investigation: testing the material of the medium against the originating ideas to see what emerges from the process. Prejudging solutions to compositional questions skews the research and inhibits the process of search and discovery. Compositional research inheres in the process of working on ideas *in situ*, exploring and experimenting within the parameters of the sound in order to discover its aesthetic potential. This process is full of ambiguities and uncertainties, and important questions often remain unresolved, but such is the epistemological nature of the research: it is a phenomenological paradigm centred on the act of composing.

In some respects this approach resonates with Chomsky's characterisation of the process of language development. As he expresses it, it begins as an amorphous block of matter that is systematically formed and refined over time: 'an undifferentiated lump of malleable stuff which is then moulded and shaped by its environment' (McGee,

1978). Brian Ferneyhough suggests something similar in compositional practice: 'one has an unformed mass of creative volition…[and]…in order to realise the creative potential of this volition one needs to have something for it to react against' (Toop, 1995, p. 7). The catalyst can take different forms, but its primary role is to prompt and excite the thought processes and to raise the sorts of questions that become the materials for exploration in the composer's sound 'laboratory'.

Questions that arise in the process of making and exploring new material — the problems discovered and the responses suggested — can be perplexing, unexpected and enlightening. Yet it is this process that constitutes the nub of the research problem. In the *Scratch Orchestra Constitution,* Cornelius Cardew (1969, p. 92), by way of an enjoinder to its members, states that:

> Research should be through direct experience rather than academic…by direct contact, imagination, identification and study to get as close as possible to the object of your research…That means the results of your research are in you, not in the book.

When we encounter new and unfamiliar surroundings we experience, as William James (1950, p. 448) puts it, a 'great blooming, buzzing confusion' of seemingly discrete, unrelated sense impressions. It can be a complex, multivalent kind of 'polyphony' of moving objects and events: a flux of independent parts operating at different rates of speed and levels of intensity, which come into being and pass away. Musical ontology is essentially like this: it is one of 'becoming' rather than 'being'. Musical structures, in their very transience, are perpetually on the edge of their own oblivion, as they, too, come suddenly into being then pass swiftly away. It is this characteristic that infuses music with its essential charge, energy and urgency. In this movement, music articulates and draws attention to events in the stream of time, where the sounding materials

delineate the current. It is the intensity and direction of the flow of this current that is open to the exploration of the composer.

Chapter Three
Towards Compositional Technique

Making work involves processes of selection, construction and editing: assembling and collating materials, interacting with and manipulating them into new relationships with reference to a balanced variety of learned or intuited disciplines. The methods employed in doing this constitute technique. One way of approaching a discussion of technique is through parametric thinking (De Souza, 2008); that is to say, the division of musical sound into its aliquot parameters: pitch and register, durations, time, rhythm, texture and space, forms and structures, timbre, dynamics and intensities, articulation and so on. This method has its precedents: Olivier Messiaen attempts something of this kind in *Technique de Mon Langage Musical* (1956), and he provides a practical demonstration in *Mode de Valeurs et d'Intensités* (1949). As a strategy it possesses an attractive logic. Xenakis (1996, p. 146), in an article in the journal *Organised Sound,* presents a similar analysis of the various constituents of music. His approach offers something new because, as he points out, musical parameters encompass much more than a simple, two-dimensional, pitch-time space. In his view the different characteristics of sound establish a multi-dimensional web which surrounds the listener on all levels. He equates it to slices through a multiple, transparent 'sandwich':

> [Music] has a structure of many simultaneous layers, which surround the listener. One has to listen to pitches, time instants and durations, dynamics, phrases, themes, structures of movement, and so on, simultaneously, even, if one is not entirely conscious of it. While perceiving music, one is in all the domains, on all levels at the same time (1996, p. 146).

He supports this analysis with a graphical representation that outlines this multidimensional space (Fig. 3.1).

Figure 3.1
Xenakis: 'multidimensional space of sounds' Determinacy and indeterminacy *Organised sound* p. 145.

[Image removed]

This is a useful formulation; it expresses the intricate and complex character of musical space, which the listener is always challenged to assimilate, and it raises some interesting questions about those elements that might be the most affective in the compositional and listening experience. However, there are dangers in isolating parameters in this way, as Tarkovsky says:

> No one component…can have any meaning in isolation: *it is the* [complete form] *that is the work of art*. And we can only talk about its components rather arbitrarily, dividing it up artificially for the sake of theoretical discussion (1985, p. 114).

Individual parameters cannot, in any case, always be dealt with independently in practice. When they are, it is often an expedient for looking at the same technical or methodological feature from different perspectives. Any theoretical discussion, therefore, involves 'arbitrarily dividing…up artificially' a process that is essentially unified, ambiguous and 'messy', and this approach is not invariably guaranteed to produce the illuminating insights hoped for.

Material is the basic coinage of any art form, and there are different ways of acquiring it. One approach is to invent it; another, to derive it, transtextually, from pre-existing sources (which might also include previous works of one's own). As a paradigm this latter approach is not without historical precedent either. Plainchant melodies of the

medieval period, for example, were regarded as a common source of material (Treitler, 1974, pp. 340-341). And composers of the eighteenth-century, proceeding on the basis of the principles of rhetoric — in a three-stage process: *Inventio* (finding material); *Dispositio* (planning form); and *Elaboratio* (exploring and elaborating the material to form the piece) (Buelow, 1980, p. 794) — aimed not to generate new material but to find different ways of reformulating and recombining a shared body of *figuren*. In any case, compositional techniques cannot be identified sensibly before the material is in place; each composition prompts different technical and methodological responses in the context of its particular demands. Any *a priori* approach imposes a theoretical precondition, and the research may result in nothing more than an exercise. The value of discussing technique *per se,* then — outside, that is, the context of a specific work — is to some extent problematic. An alternative approach is to identify, and comment upon, the various stages in the process of developing a work, and from this perspective it might be constructive to think about the range of technical procedures that are available to a composer. In this chapter, therefore, a more general discussion is presented which addresses the different stages of selection, construction and editing, for the sake of theoretical discussion.

What follows is a discursive mixture of themes ranging from aspects of technique, attitudes towards different musical parameters and compositional methodologies. (1) Observations about the early stages of the compositional process are presented first, and the idea of creating and configuring a preliminary 'problem space' for composition is introduced. Material accumulated, collated and placed within this 'space' is also part of the process of creating it. The constituents of (2) musical material, therefore, are discussed, and questions are raised about the nature of material, and what its underlying components might be. This is an important issue because it has a bearing on our

understanding about what compositions are capable of communicating. It also informs technique because it influences what is selected and how that material might be interrogated and used. This is followed by (3) a consideration of the constructional elements of composition, and the creation of musical continuities. Various approaches to narrativity are explored, and the influence and importance of timing and silence in music. How is musical progression stimulated or shaped? What determines the pace at which new material can be introduced into a composition as it unfolds? Then (4) what are the implications of the way in which this unfolding discourse is presented? It is the progression of the musical ideas that constitute a musical argument, and this establishes, and is at one with, form and structure. How might a rationale for this process be developed in the context of the material? These processes could be said to be synonymous, in a sense, with musical language. An investigation is made, therefore, of (5) musical language and compositional style; several propositions are explored and discussed. What value these may have, and how they may apply to the compositional process, is also considered. Various elements of musical language are explored in some detail, including: (i) timing — pacing and introducing new material; (ii) texture — the relationships between individual parts; the creation of musical contours — in light of the Gabriel experiments (1978); (iii) articulation — musical stresses and accents, etc.; (iv) silence — its various forms, and its impact on articulation. (6) By what means can musical materials, structures and narratives be defamiliarised to highlight their aesthetic and rhetorical functions? And finally (7), in providing an account of the editing stage, questions are raised about the impact and significance of indeterminate and serendipitous events that may arise during the compositional process itself: how might these be used to inform further compositional decisions and procedures?

(1) Preliminary Stages in the Compositional Process — Defining the Compositional 'Problem Space'

It is fascinating to ponder the process by which ideas for new compositions begin to take shape. When confronted by the sight of the *Rose Lake,* for example, Michael Tippett (1993, p. ii) describes experiencing '… a profound disturbance within me: the sort of disturbance which told me that the new orchestral work had begun'. But in whatever way an initial idea begins to coalesce each new composition starts with a period of preparatory initiation and research. The preliminary stages of this help to characterise and confine the work's 'problem space' — drawing together ideas and materials into the composer's figurative 'laboratory'. Within this space the possibilities for the discourse of a work are primed and triggered. An element of detective work is required: a process of gathering-in and separating out the constituents and components inherent in, or suggested by, the initial idea. The experience is rather like moving around an object in order to view its features from different angles. This preparatory activity is important because it is from here that the nub of a compositional problem is sharpened, and from which successive possibilities and subsequent ideas emerge. And it is in this process that the work grows and evolves. The 'problem space' for every composition is specific and unique. In the following chapters this formative process is discussed within the context of each of the works, but it is interesting to consider, in a general way, the range of possibilities and the general characteristics of the elements that form these nascent, compositional ideas. The most fundamental component is musical material.

(2) Musical Material — Selecting, Gathering, Devising and Exploring

What is musical material? The most immediate and obvious answer is: sound. Yet, a deep paradox lies at the heart of compositional activity, located in the very stuff from which it is made. It suggests that a more complex and thoroughgoing answer is needed. In the creative act an attempt is made to bring something to 'life', but it is done with inanimate materials: substances that have no actual life themselves. Sound, it need hardly be stated, is not a living thing, it is a secondary property of vibration (Scruton, 2009, p. 47). Yet, as Tarkovsky points out, it is this dichotomy between the 'living' act and the 'dead' material that is the most significant thing about it: 'This prodigious paradox, in all its absurdity, leavens life itself, and in art makes that wholeness in which harmony and tension are unified' (1985, p. 38). But what is this 'living' aspect, and could it not, itself, be considered material?

The compositions included in this project are made from standard musical materials: acoustic instruments, time, pitches and durations. But these elements, as has been argued, represent only the most conspicuous components of what might be considered musical matter as such. If music is to be understood as a discourse, as a 'thingly' object made and worked out in the form of an argument, rather than simply an abstract essay in sound, it becomes possible to imagine a much broader potential for material *qua* material. Dynamics, timbres, proportions, general gestures, and all of the possible connotations derived therefrom, become possible as basic musical materials, possessing both organic and dynamic qualities as expressive and communicable as any other characteristic of composition. For example, a *fortissimo-pianissimo* dynamic sequence possesses the possibility of becoming a dialectic polarity, or a persistent rhythmic syncopation might be suggestive of the underlying concept that supports it. In the

former the polarity of opposites might express a notion of extremeness; in the latter, a notion of contradiction might be the point to be derived from conflicting accents. Another example: a compound of staccato rhythms and rests might be re-imagined more deeply as an expression of fragmentation, a 'stop-go' angularity of movement, or a notion of 'hiatus', brevity, concision, arrest and so on. It opens up a space for further compositional exploration, creating a broader palette of possibilities for a more encompassing hermeneutic. They become metaphorical signifiers reflective of the inner movement of our experience with a potential for exploration outside the originating parameters, transformed and translated into the components of a discourse. In this respect one could posit a 'dynamics' of timbre or a dichotomy of loud-soft textures. A staccato attack, transformed into a symbol for 'concision', may be translated into other musical parameters: a textural staccato, perhaps, or melodic fragmentation and so on.

If we accept Dewey's (1934, p. 285) contention that the work of art is 'what it does' (for him, concentrating and enlarging an immediate experience) rather than 'what it is', together with Langer's formulation that art is a reflection of a concatenation of inner perturbations and excitations, we can imagine some compelling possibilities for musical material. The interpretative inferences that may be drawn from the presentation of sound's various parameters, together with the ideas and perceptions underpinning these inferences, become fascinating elements for interrogation and exploration. The range of possibilities for the stuff with which composers work expands and enlarges to include all of the characteristics and conceptual associations contained within the sounds themselves. And in this context, composition is projected into a broader, more inclusive, conceptual discourse. In an interview as part of the *Evolution and Collaboration* research project, carried out by Bayley and Clarke (2011), Michael Finnissy states:

> …just saying the words 'string quartet' could be part of the material, to the point where you could begin an investigation of what the material of the piece was from that. Obviously the material is also going to be notes and rhythms at some point, but are they generated by the idea of 'quartet', or are they generated from the ideas of something else I might want to do, for example repetition, or a particular kind of variation technique, or something else. Then the variation technique becomes the material rather than specifics (Bayley and Clarke, 2011).

When discussing his *Sequenzas,* Luciano Berio claimed that '[a] musical instrument is itself a piece of musical language' (Halfyard, 2007, p. 85).

Sounds, unless artificially synthesised, are essentially 'found objects'. As materials, they are not so much created as derived from a universally available palette. A question arises, therefore, about the need — or, indeed, possibility — for new and/or original materials as a prerequisite for the creation of new work. In his recent book on the history of continental philosophy, John McCumber (2011, p. 3) makes the telling observation that: 'It was a deeply delusional moment when humans decided they could…create *ex nihilo*. Human creativity is really never more than a reshaping of one's conceptual heritage'. To use a Gestalt analogy, in a sense, one's musical heritage establishes the ground against which new compositions form the figure. In previous eras, as already noted, the common fund of ideas was recognised and overtly exploited: the plainchant example, above, provides one example, and, the shared *Figurenlehre* of the Baroque era, another. Composers have not always been charged with the task of creating *ex nihilo*.

Perhaps it was with the advent of formal archetypes in the late eighteenth century that the onus of devising was thrown onto the composer. But this aspect was not (and is not) the only test of compositional originality. If the role of new music is one of posing

authentic and original questions, fresh approaches to continuity and narrativity are, perhaps, more important. It is instructive to draw again on Shklovsky's (1917, p. 16) notions about the relative importance (or, rather, unimportance) of the art object. It is not the creation but the manipulation of material that is, for him, of the first importance — the real act of aesthetic significance is to be found in demonstrating not what the art is made of but what it is capable of doing.

Of what compositional material may be constituted, how it is selected, created or interrogated, is a matter of both technique and temperament. The notion of context is an important prerequisite. Cage's conviction that any sound can be music, for example, holds true only insofar as we are able and willing to conceptualise it as such — to conceive of it as framed within a musical context. This desire to establish a conceptual space within the boundaries of which sounds can be perceived as inherent entities seems to be very strong. It is within this mental arena that relationships between sounds (and narrative combinations of sounds) are perceived as coherent happenings, and this enables us to recognise networks of possible connections and contradictions. The area mapped out within the compositional 'frame' becomes the *mise en scène*, and the compositional act then becomes a process of deciding what it might appropriately contain.

Time is one vital component of musical material. It shares this with a number of other art forms: most potently, perhaps, the visual performing arts. Interactions with the latter are discussed below and in the following chapters.

(3) Musical Continuity and Narrative Structures

The formulation of a musical syntax is, perhaps, the first principle of compositional narrativity. The question can be simply put: what does one write after having written the first note? Schoenberg (1984, p. 270) poses it slightly differently: '…what makes it possible that a second tone should follow a beginning tone? How is this logically possible?' Tackled from the perspective of tonality, Schoenberg emphasises the internal relationships provided by nature — i.e. the arrangement of notes derived from the harmonic series. Outside the boundaries of the tonal language, however, the problem becomes more open and problematic; what principles govern its structure then?

From the first moment in a composition, and at any given point thereafter, multiple choices are faced about spatial and temporal continuities [5]. Stockhausen explores this phenomenon in *Plus Minus* (1963b). He condenses his response to a basic principle: (1) more (plus) and (2) less (minus). He actually identifies three fundamental possibilities for each musical parameter: Plus: expansion, higher, louder, longer; Minus: contraction, lower, quieter, shorter; Equivalent: equal, no change, repetition. The situation becomes more complex when multiplied by the panoply of permutations across the complete set of musical parameters, but once this metaphorical 'plus-minus' process is under way musical narrative begins, each succeeding moment connecting with, and being in some way related to, the previous ones.

[5] The most obvious manifestation of narrative in music is the direct, sonic one: continuity established by the succession of sounds themselves. This succession highlights two important characteristics of musical material: allusions of the spatial and temporal. Although, as Scruton (1996, p. 13) points out, sounds possess directional qualities that are determined (sometimes, but not always) by their points of origin, sound itself, enfolded as it is into a single, linear sound-space, is devoid of any real spatial properties. Sound, in other words, does not possess an object-like ontology. Nevertheless, the sound world impinges on us existentially through perceived, object-like pitch relationships, expressed through our interpretation and perception of their orientation to one another. In the context of our own spatial experiences we interpret pitches in terms of their apparent, two-dimensional presence: up, down, or level. In other words, we convert what is, essentially a phenomenon of vibration into frequency and the spatial dimensions of higher or lower.

But there is no obligation always to proceed sequentially. The conditions of continuity are not inevitably restricted to, or governed by, these localised decisions. A wider range of considerations can often be tackled in the preliminary stages: concerns, for example, about where a work might begin and end; where a work, in fact, does begin and end; the characteristics of a particular continuum; textural characteristics; the structure established by succeeding events; and the character, relationship and aesthetic point of view that is emphasised and illuminated by them. Each new composition presents its own peculiar set of characteristics, but underlying questions remain applicable: what is the potential for musical continuation? What is the nature of a particular narrative? Responses to these questions depend, to a great extent, on the material. Individual bits of material act as the primary musical agents that allow narratives to be made — 'actors' on the narrative stage. As Hindemith says: 'the composer's ideas are the actors who by harmonic, melodic and rhythmic circumstances are turned into…characters…being of the kind that lives in the stored-away world of the listener's images of emotions' (1961, p. 57). In order to construct a pathway through a work, therefore, the material first needs to be examined and characterised in order that a narrative strategy may be developed from it. A further question then arises: how many, and what kind of narrative possibilities does the material itself permit, imply or suggest?

The nature and function of musical narrative has been hotly debated. Absolutists and referentialists disagree over basic principles. Those who regard musical narrative as wholly extrinsic, derived from, say, literature or drama, see evidence of formal weakness in music constructed from more abstract formal archetypes (Nattiez, 1990, pp. 240–257). Others, such as Byron Almén (2008, pp. 38–54), maintain that a powerful, integral kind of musical narrative is possible, which does not rely on specific external referents: one, indeed, that complies with its own unique set of behaviours. An

historical perspective is instructive. Narrative strategies have, in the past, been determined by prevailing social and philosophical contexts. The Baroque predilection for rhetoric, in which the work itself was manifested as a musical argument, was gradually replaced by a more rationalised, grammatical approach to continuities:

> Know how to express truly all the heart's inclinations by means merely of carefully chosen sounds and their skilful combination without words, so that a listener can completely grasp and clearly understand the motive, sense, meaning and force, with all the phrases and sentences pertaining thereto, as if it were a real speech (Mattheson, 1739, p. 25).

What has persisted, it could be argued, is the notion of *Grundgestalt*: the logical continuity of a basic musical unit — the compositional formant —based on rationalist precepts (derived largely from analogies drawn from nature) concerning the growth, development and ordering of musical *gestalten*. The notion that musical cohesion and unity is possible only through a process of organic growth and development has been, and in some cases still is, regarded as the highest principle of compositional construction. Cone (1960, p. 177) states that organicism is based on the principle of progression, and music that denies organicism actually denies the principle of progression. Rosen (1976, p. 39) provides an articulate exposition of this idea:

> Not only the themes but also many of the accompanying details, and even, indeed, the large structure are often derived from a central idea. The coherence of a work of art is, after all, not a modern ideal anachronistic in the late eighteenth century, but the oldest commonplace of aesthetics, handed down from Aristotle through Aquinas. Motivic relationship has been one of the principal means of integration in Western music since the fifteenth century (1976, p. 39).

This is still regarded by many as axiomatic – a fundamental condition of the art of composition – but it is important to acknowledge it as artefact: an idea emerging from a specific set of cultural codes. In the nineteenth-century, for example, the German notion of *Volkstümlichkeit* — a rootedness in blood and soil — posits a metaphysical and

spiritual foundation for all things natural, and of Nature itself. E.T.A. Hoffman (1989) famously established this seed-growing, plant-nurturing metaphor in his analytical work. In 1815 he published a motivic analysis of Beethoven's Fifth Symphony (1989, p. 234–251), which was widely read and enthusiastically adopted by composers (Schumann and Brahms among them) who regarded themselves as its inheritors and guardians. However forceful, convincing and successful a concept it has proved for composition, it is important to recognise it as an idea of its time, borne of a particular outlook, with a significance appropriate to a very specific milieu. Yet it has infiltrated the compositional subconscious and hardened into an ideology: a dogma and determinant of 'good' compositional practice.

Patterns and relationships are detectable between bits of musical material as a consequence of an inherent tendency of human perception. The brain appears to be fundamentally structured for such pattern seeking (Gregory, 1977). We see and hear patterns because we are naturally inclined to do so. It is through this mechanism that we establish a grip on the world and order our sense of reality. But, although the mechanism is of a high level of complexity and sophistication, the field of perception itself is not ultra precise. There is much scope for error and ambiguity. Some perceived patterns are, in fact, illusory — a phenomenon of which the arts take particular advantage. But a composition should be more than simply the sum of its perceived patterns or the development of its features. Coherence is important in any form of communication, but there are different ways in which it can be established. It is possible to present material in a variety of discontinuities, which does not inevitably result in a breakdown of cogency. What seems to be more crucial for maintaining the integrity of a composition (or any work of art) is not the pattern-based model of organic unity as

such, but expressive consistency — sustaining a clear vision and exploration of the original idea at the centre of the work.

(4) Possibilities for New Narratives

In his preface to Deleuze's and Guattari's *Anti-Oedipus,* Foucault (2004, p. xvi) encourages us to 'Prefer what is…multiple, difference over uniformity, flows over unities, mobile arrangements over systems. Believe that what is productive is not sedentary but nomadic'. Is it possible to resist characterising composition, therefore, in terms of ordering chaos, or processes of development and inexorable resolution? Error, failure and ambiguity are common occurrences in human experience; disorder and uncertainties are more potent factors in the lives of many. Why should these experiences not be overtly represented in the structures of art? Should a space not be made to reflect these as valid alternatives in, say, uncertain, fractured or errant narratives, narratives that fail, narratives that roam, or continuities that stall.

Time is an important container of these 'nomadic' flows, and music delineates different aspects of it: chronologically and psychologically. These diverge because they represent different perceptions. Chronological time is, perhaps, the simpler to comprehend: it encompasses the limits of an event, the time taken to play a composition, the actual duration of its performance. Psychological time is experienced, more complexly, through the inner movement of the work itself, spun out of the work's inner durational dimensions. Psychological impressions of time are experienced emotively and have a greater and more profound bearing on musical experience. Sessions (1950, p. 14) considered this an expression of rhythm, the 'fundamental organic fact, the product of many forces within us working together'. Much of the vitality of music is created by the

interplay involved in this 'organic fact', between metre and rhythm and the tensions that this interaction produces: between the perceived regularity of a beat and the disparate variations and contradictions of the rhythmic content that 'kicks' against it. Together they create a 'time-pressure' that establishes a work's essential momentum, articulated and sensed not only in the pulse, tempo and rhythm, but also in the rate of harmonic change and the frequency with which new material is presented. A creative dialectic often exists between the details of a work (as it gradually unfolds) and the structure of the whole. The process whereby new detail is injected into a composition presses upon the listener continuous moments of sustained uncertainty and suspense, and raises interesting questions: how will the detail relate to the context, how will the context change or be changed by new events and how does it all relate as a whole? These are potent questions. It creates a discourse that possesses an order of reality perceived in terms of happenings — 'before', 'after' and/or 'simultaneously' — occurring at various rates of speed. This flow of events renders time tangible.

These two aspects of time do not, as a consequence, necessarily correlate. A piece that has a short chronological duration may be experienced, psychologically, as an expansive movement and *vice versa*. Dichotomies and tensions, therefore, often exist between them, and these can be exploited creatively as part of a work's aesthetic purpose. However, some significant attempts have been made to free rhythmic structuring from what are regarded as 'superseded vocabularies of the past, and its over reliance on the more commonplace aspects of speech-resemblance' (Ferneyhough, 1995, p. 51). But there are some tough obstacles to overcome. One of these is our persistence in rationalising perceived durational patterns. According to Sloboda (1985, p. 28), very early in our lives we develop capacities for 'categorical perception': that is to say, we categorise deviations not as new, or complex divergences, but as

eccentricities of an underlying standard pattern. We learn to hear non-standard rhythmic patterns as (performance) variations of an assumed underlying standard, which demonstrate, among other things, our robust tolerance for variation.

Time, delineated as fractured narrative, is explored in at least two of the compositions in this portfolio. In the *Twelve Biomechanical Studies* photographic and video extracts are used to frame an investigation of different approaches to continuity and musical structure. *Tilting Martha* comprises a series of sequences for dancers. Both works engage with different visual representations of movement as narrative.

(5) Musical Language: Some Theoretical Notions

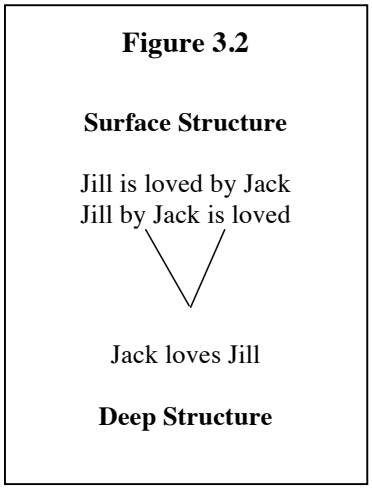
The debate surrounding musical language has been a persistent one. Dewey (1934, p. 109) claims that it is because the work of art is expressive that it can be thought of as a language. Music certainly communicates something, says Cone (1974, p. 1), but we are not quite sure precisely what or how, and nobody agrees about it. Yet it 'speaks' to us, nonetheless:

> Music is a language. Such, at least, is the implicit assumption, if not the explicit assertion, of many of those who talk and write about it. Music communicates, it makes statements, it conveys messages, it expresses emotions. It has its own syntax, its own rhetoric, even its own semantics. For we are told that music has meaning, although no two authorities seem able to agree on what that meaning is (Cone, 1974, p. 1).

One approach to understanding musical language has been to test it against the precepts of linguistic theory, particularly the theories of Noam Chomsky (Bernstein, 1976, pp. 53-118; Sloboda, 1985, pp. 11-17). This theory approaches music from the proposition that humans are born with an innate capacity to develop the necessary skills to understand it (as they do with spoken language). These capacities, it is argued, inhere

within the structures of the human brain; they are 'hard-wired', so to speak, and as such, make available to us the fundamental principles that underpin the logic of both language and music. We do not need to be taught *how* to speak in order to learn a language, these capacities can more accurately be said to grow or develop naturally from within (Chomsky, 1972). Musical thinking, according to Chomsky, is a form of cerebrating that, although distinct from language, nevertheless involves formations of structure that resemble it in its capacity to be publicly articulated and understood [6]. Sloboda (1985, p. 13) has argued for a specific connection between Chomsky's ideas and the principles of Schenkerian analysis. Music, he suggests, possesses the same kind of deep and surface structure relationships theorised for language by Chomsky. In his set of Harvard lectures — *The Unanswered Question* — Leonard Bernstein (1976, pp. 53-118) attempts a similar analysis from the point of view of emotional response. The significant point about this formulation from a compositional perspective is that it makes variations and emendations in the surface structure possible, without thereby undermining the basic meaning at the level of the deep structure. For example, the sentence — 'Jack loves Jill' — as a deep structure proposition (the fundamental meaning) remains intact under a multitude of different surface-structure transformations: 'Jill is loved by Jack'; and, slightly more archaically and poetically, perhaps, 'Jill by Jack is loved', etc (Fig. 3.2) (after Bernstein, 1976, p. 67).

[6] The specifics of a particular language or musical style differ, of course, depending upon the culture within which they develop.



It is this phenomenon, according to Chomsky, that facilitates creative experimentation in verbal expression. Transformations and variations in the surface structure give language its living flexibility, and permits endless inventive play without endangering basic content.

In the context and terminology of this model, then, art, it might be suggested, is exercised on the level of the surface structure. A musical example might help to clarify this point. In Finnissy's Third String Quartet (2007-9), a recurring passage, containing the same basic material, expressive force and 'glutinous' texture (Finnissy, in Bayley and Clarke, 2011) (marked *Adagio, Sehr feierlich und langsam* [♩ = 54]) undergoes a process of transformation in its detail (that is, in the 'surface structure') with each reiteration. The basic identity of the passage — its underlying thrust, force and texture — however, remains intact at the 'deep-structure' level (Exx. 3.1 a–c). The sense is one of hearing the same material from different perspectives, and it demonstrates how surface structures in music can be manipulated and transformed to give a fresh articulation of the same underlying material without destroying its essential content.

[Image removed]

The foregoing analysis tackles the issue of change at the surface level, but how might meaning at the level of the deep structure be understood from a musical standpoint? One definition invokes the Schenkerian *Ursatz* (Forte and Gilbert, 1982, pp. 131-134), characterised in terms of the pattern: stability (rest) — instability (disturbance) — return to stability (rest) — the creation and resolution of tension (Sloboda, 1985, pp. 11-17). Sessions (1950, p. 19) considered the elements of tension and release to be the fundamental language of musical discourse. These, he suggests, constitute the primal, potent phenomena — expressed in the existential fundamentals of rhythm, phrase structure, melodic pitch contours and long-term musical form. It is a well-worn concept and is implied in the Chomskian model. But there are problems with this formulation. In the first place it is limited to diatonic tonal music. Where the rules of diatonic tonality cease to apply, the notion of a stable, deep structure, perhaps, become less certain. Non-diatonic music, in fact, effectively destabilises this Chomskyan model, manipulating syntax not on the surface but at the level of the deep structure itself. Indeed, this is part of its aesthetic objective.

These issues raise important challenges for the reception of contemporary music. The main problem, perhaps, is one of ambiguity — there is, by definition, no common language with which to express new musical ideas. Indeed, if there is an imperative for composition it is to consistently broaden the field of expectations, to experiment with novel possibilities for the language of the medium as part of the ongoing process of exploring new forms. As Sloboda indicates: ‘Syntax becomes, in itself, an object of aesthetic awareness, and the pressures for novelty invite diversity and change’ (1985, p. 38). It is an instance, perhaps, where Shklovsky’s ‘violation of expectations’ is manifest. In this context, immediate comprehension ceases to be a plausible or even

desirable expectation. When listening to new (or indeed familiar) compositions, to what is the audience encouraged to give its attention? Perhaps Sessions is correct to suggest that the musical ear coordinates its experience by reading any pitch relationships in their simplest light — in terms of representations that suggest: 'that's the tonic', 'that's not the tonic' — where the concept of a 'tonic' may be understood to be not necessarily a diatonic chord but any perception of a home base — 'this is that same bit again', whatever 'that bit' may consist of.

Whatever the difficulties and challenges, there are strong points of contact between senders (composers) and receivers (performers and listeners). The bond of understanding in musical communication is created through the acquisition of certain habitual expectations in the use of pitch, time and form elements, which can be thought of as the basic components of a non-semantic, musical 'language'. The understandings and meanings found in these elements are essentially interpretative, and their treatment has continually changed throughout history. It is because of its non-specific and ambiguous nature, perhaps, that music is so attractive to us. It is able to express what words do not, and, perhaps, cannot express. The sonic events themselves constitute the meaning and require no additional elucidation to render them more meaningful. Repetition is one crucial factor that establishes a common understanding for musical language (Schoenberg, 1984, p. 264). It establishes habits of listening that, through reiteration, become familiar and 'knowable', and is particularly important for creating a sense of musical form. Schoenberg was very explicit on this point:

> Repetition plays such a leading role in the way music is given shape, in its whole formal technique that deviations from it are what might require special pleading (1984, p. 264).

Schoenberg is referring here to the phenomenon of the motive, suggesting that it acquires its function *qua* motive precisely by dint of repetition. Although more sophisticated artistic forms tend to obscure reiterative processes (outside the field of minimalist music, perhaps), repetition of some kind must obtain in order to render some kind of formal structure. So convinced is he of its importance in this respect that he goes on to claim: 'We have found no other basic principle for giving shape to music'. The form that repetition takes, however, is open to question, as Schoenberg himself understood when formulating his notion of developing variation. Ian Bent (1987, pp. 1-5) encapsulates this idea, and includes recurrence, contrast and variation of material as the three fundamental form-building processes in composition. Variation possesses the greater aesthetic merit for Schoenberg because re-forming the music requires a 'new and special effort' (1984, p. 129).

But, in the context of the exploratory impulse essential to the making of new work, the prevalence of repetition can present serious difficulties. New music faces a persistent challenge which arises from a dual imperative: to establish meaningful communication with an audience on the one hand whilst exploring new ground, new artistic perspectives, new and unfamiliar expressions and variations of sound and form on the other.

The discourse concerning traditional Western attitudes towards the musical work as a reified form — the critique surrounding the notion of the score as a fixed compositional object — has, perhaps, run its course (Bohlman, 1999, pp. 17-34). It does, however, offer some useful ideas for approaching the process of composing. The life of a human is, perhaps, more usefully analogous to a wave: a process of constant energy transference. Learning, understanding and meaning are possible only through the

transient processes of lived experience. It may be instructive to think of musical composition in this way: transition and transference of energy, rather than solid structures, may be the best indicators of form and expressive content — forming, growing, rising, colliding and decaying; dissipating energy as it 'breaks' against the constant flow of musical events. This highlights a meaningful yet troubling contradiction for us; our craving for some kind of permanence is often at odds with our need to embrace transience as the essence of a life fully lived.

(6) Developing Defamiliarisation Techniques in Composition

Although music possess its own peculiar 'otherness', it is a field, nonetheless, in which not only are the personal motives and cognitive predispositions — the *Weltanschauung* — of the composer, performer and audience powerfully influential, but also where the source materials are often extremely familiar and, indeed, habitually anticipated. Firmly entrenched perceptions about the essentials of the constituents of the art have, in the past, been heavily safeguarded and promoted; they become arbiters for, and key indicators of, both the perceived skill of the composer and the value of the music. Concepts of coherence and formal unity, for instance, predilections for particular rhythmic, harmonic and melodic languages, textures, timbres, and so on, are all embodied in established notions about the function of music as an art form. And they confront the composer with a difficult question: is there a space for a renegotiation of the parameters of composition in the face of established, familiar and routine assumptions? As already seen, the predominant objective in composition has often been to create new and original material. Yet, again, the extent to which it is possible to devise genuinely unique material is open to question. Charles Ives (1972, p. 48)

highlights this problem in his *Memos*. He outlines the 'danger of restricting music to habits and customs':

> I am fully convinced [that] if music be not allowed to grow, if it is denied the privilege of evolution that all other life and arts have, if [in the] natural processes of ear and mind it is not allowed to grow bigger by finding possibilities that nature has for music, more and wider scales, new combinations of tones, more keys and beats, and phrases together…if it just sticks to one key, one simple and easy rhythm, endless repetition of static melodies, harmonies, resolutions and metres…then before many years, music cannot be composed, everything will be used up, and music as a creative art will die. For to compose will be but to manufacture conventionalised MUSH (Ives, 1972, p. 48).

The last line of this passage, perhaps, makes the key point. Ives is speaking primarily in defence of the development of new types of material, but in a sense, he is also arguing for the application of new means for dealing with it. And, in any case, if Shklovsky's position is accepted, and the creation of new material is acknowledged to be of less critical value than the way in which that material is used, the position need not be so troubling. As Shklovsky states: '…poets [should be] much more concerned with arranging images than with creating them' (1917, p. 7). Meyer (1967, pp. 5–21) approaches this question from the preserve of information theory. Only messages that signal the unusual and unexpected, he claims, carry any real affective value for us. The familiar possesses little or no information content, and, generally speaking, generates little interest. We respond by automatically filtering out, or ignoring over-familiar data.

Music, therefore, can and should celebrate its inherent and overt otherness in order to generate the highest quantity of information content and affective impact. As Cone (1961, p. 441) says, for the 'fullest enjoyment we want the medium of an art to be saturated — used to the fullest extent in every dimension'. The creation of new work provides important opportunities to test this renegotiation of familiar ground in as many

directions as possible — to attempt the Shklovskian 'transfer of what is depicted onto a sphere of new perception'. In order to achieve the highest saturation possible consistent with the aesthetic aims of each work, an attempt has been made throughout this project to preserve an objective distance, and to engage with the potential prospects for defamiliarisation by manipulating familiar material in new and unfamiliar ways. Locating conceptual models that might suggest how this may be achieved has been an important part of the preparatory research for this project. One such source, if read analogically, provides a congruent set of ideas that might proffer a possible strategy. It proposes a method for approaching old and familiar objects as though newly perceived. In a short tract — *Voyage Autour de Ma Chamber* (*Voyage Around My Room*) (1795) — the French eighteenth-century man of letters, Xavier de Maistre (1763–1852), attempts a philosophical experiment with his own habitual perceptions. In his investigation he imposes an unusual constraint upon himself: he supposes his bedroom to be the extent of his known 'universe', and he traverses the space, recounting his perceptions and observations on the intricate details of his furniture, fixtures and fittings, as though perceived for the first time. By placing the familiar and unfamiliar in this relation he is forced to renegotiate his understandings of the objects in his room, and in so doing uncovers much that, through familiarity, had become concealed. More than this, he is prompted into new and deeper reflections stirred by the renewed perception of the objects he encounters.

De Maistre's experiment may appear little more than a conceptual trick, but it is one, nevertheless, that promises a renewal of ideas. In it, he tackles the normalising tendencies brought about by habitualisation of perception. And he promotes an attitude of re-engagement with, and attention to, familiar surroundings and the forgotten (or overlooked) details of the everyday. New life is breathed into habitual interactions,

offering the possibility of an enrichment of experience through a revitalisation of the mundane. This to Meyerian ears sounds like the extraction of high information content from tired, seemingly unpromising redundant material. And, indeed, as a conceptual model it has been useful in offering an approach analogous to the one adopted in this project. Rather than seeking to invent new musical resources in the Ivesian, or, indeed, Cowellian (1996b) sense, either through the use of extended instrumental techniques, electronic synthesis and so on, I engage more closely with familiar musical materials — acoustic instruments, pitch materials, durations, etc. — in a way that revisits and renegotiates these familiar interactions, in an attempt to reveal what may have become obscured or overlooked through habit or familiarity. It is an approach that has something of 'Ockham's razor' (Kenny, 2007) about it, perhaps, where the variety of musical entities are not multiplied beyond necessity.

It is possible to contest familiar musical perceptions, structures and gestures from two different points of view: (1) Externally, relative to other works and within an historical context, and (2) Internally, from the standpoint of a work's own inner environment, established modes and narrative relationships. As already noted, Rosen (1976, p. xviii) warns us that the simple act of contravening formal archetypes does not in itself produce a lasting effect. Once such gestures have become familiar they quite quickly lose their impact and significance. A more profound compositional approach, he suggests, is to challenge the established mode of operations 'set powerfully from within the piece', which will be more likely to retain their impact with each listening.

Wolfgang Iser (1974, p. 59), refining his own argument, explains that the expectations formed about the content of a work of art do not hinge solely on comparisons with past works. Indeed, the forms and behaviours indigenous to a specific work may also

engender such expectations. By challenging the criteria that have been established within the work itself the reader is placed in a position of having to direct their mental faculties 'towards an attempt to comprehend the new situation with which they are confronted'. And in so doing we venture outside our habitual sphere of experience.

One of the most powerful influences that challenges the formation of habitual musical structures is indeterminacy. As has been argued, this is the case not just in performance but also in compositional process. It injects a natural defamiliarising element into the proceedings.

(7) Flexible Elements in Compositional Technique

Is it possible to incorporate indeterminate elements into compositional technique non-ideologically as a creative means of defamiliarising materials and processes? In principle indeterminacy can be understood and experienced as a form of disruption: a disruption, that is, of some prior, predictable, determinate or expected event. The power of prediction is important for comprehending our environment. As children we develop understandings and perceptions that are instrumental to the formation of these expectations. One of these, Jean Piaget (1946, pp. 547-575) tells us — and one that seems to be essential to our apperception and understanding of music — is our sense of the regularity of time. Predictability in this respect is linked to the notion of sequential regularity, created by an ordered, cyclical, reiteration of events. A simple rhythmical pulse, for instance —'tap,' 'tap,' 'tap' (a knock at the door, perhaps) — possesses certain, specific and discernable characteristics: three elements, strung together into a close formal relationship. This is expressed partly through the periodic aspects of the event: three regular taps, interspersed with a space of equal length between each. It

creates a *Gestalt* [7]. But there are further characteristics that reinforce the unified quality of this event: the equivalent intensity of each tap, the shared timbre, perceived pitch and so on. The perceived predictability of a particular event is construed by the regularity, recurrence and similarity of all of an event's ingredients working together. They lead us to expect more of the same. Stockhausen pursues this idea in several of his compositions. He posits the notion of 'groups' based on this idea of the shared recipe of characteristics:

> By group I mean the number of notes that can be separately distinguished at any one time, which is up to seven or eight. And they have to have at least one characteristic in common. A group with only one characteristic in common would have a fairly weak group character. It could be the timbre, it could be the dynamic: let's say for example you have a group of eight notes which are all different in duration, pitch and timbre, but they are all soft. That common characteristic makes them a group. Naturally, if all the characteristics are in common, if all of the notes are loud, high, all played with trumpets, all periodic, all in the same tempo, and all accented, then the group is extremely strong, because the individual character of each of the eight elements is lost (Stockhausen, 1991, p. 40).

In the following extract taken from *Kontra-Punkte* (1952) (Ex. 3.2) for example, a group event is established in the upper staves by means of a collection of similar durations, all played on a single instrument (the piano) at predominantly the same dynamic level (*pianissimo*). Those that do not share these elements stand apart as 'points'. The bass notes in the third stave establish a second group because they contradict these shared characteristics in several of their characteristics.

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[7] Three elements are sufficient to establish a group with a determinate pattern of expectation, according to Stockhausen (1991, p. 43). When a group reaches beyond seven elements it becomes more problematic in terms of perception, and transforms into a gesture or statistical *mass*.

[Image removed]

This is significant because any changes made to the regularity or uniformity of any one of these characteristics creates a disruption, weakens the group and, hence, the predictability of the event. In the previous illustration this disruption could be achieved by increasing the time between taps, making one louder or softer, or tapping on a different spot to change the sound. The result is a kind of rupture, creating a disturbance of equilibrium: a surprise, a shock, a thwarting of expectations. This event, I would argue, has now become an indeterminate one because we can no longer be assured of the regularity of the pattern. The question has been raised in our minds: 'once disrupted will the pattern (and our equilibrium) be re-established?' A seed of doubt has been sown, and it has given rise to a world of instability. A creative tension results, and a conflict now exists between our expectations and what is realised; we find ourselves at the centre of a strange and unpredictable world. The indeterminacy afforded by such disruption is, perhaps, one of the most powerful tools available to the composer.

Once indeterminacy is accepted as an underlying fact of musical life it can be turned to creative account as an aspect of compositional technique. Indeed, it sits quite happily with those Shklovskian notions of defamiliarisation and de-habitualisation through a

process of disruption [8]. Indeterminate freedoms may be considered from various perspectives: (1) residing at a number of different points in the musical process, and; (2) concerning elements of choice rather than chance: a choice, that is, of performance possibilities, lying essentially (unlike improvisation) outside the performer's habitual gamut of tastes or technical and theoretical experience and expectations. To suggest that formal structures can possess an indeterminate nature is, perhaps, to strain the argument, however. It implies that certain aspects of the music remain undetermined, but this cannot be so, since every act must somehow, and at some point, be determined. It would be more accurate to say that the controlling decisions are deferred to a different point: typically weighted away from the composer towards the performer. So, in this sense, indeterminacy amounts to the freedom for a performer to choose from a range of (to them) unfamiliar performance possibilities. The question arises: why leave compositional choices open at all? Is it not the composer's responsibility to determine all of the characteristics of a composition? Some, like Stravinsky (1972, p. 19), have argued that it is. But indeterminate methods can be used responsibly in composition as a viable means of generating structures in which non-habitual musical events may occur, leading to creative outcomes that are fresh, new and unpredictable. The composition process is, in any case, always an unpredictable one, comprising a rather complex relationship between rationally thought-out ideas, subconscious influences and interplay, control and that which lies outside of the composer's direct determination. As

[8] A determinate act is one over which one exercises some degree of control, whereas an indeterminate one admits of no direct control. It might be better to clarify this by indicating what, in this context, freedom is *not*: (i) Not improvisation: which typically consists of a 'free' musical space, in which a performer may exercise their skills in extemporisation. It is a form of spontaneous composition, but one that essentially consists of working of material largely familiar to the performer – 'riffs', 'licks' and well-worn figurations derived from known fingering/thought patterns and so on. (ii) Not aleatory, which is a term, borrowed from mathematics and introduced to composition by Pierre Boulez (1991b, pp. 24-37) — although some curious examples of 'dice' music are to be found in the eighteenth century (Hedges, 1978, pp. 180-187) — literally means the throw of a dice and relates to operations of *chance*. These operations are typically applied to the composition process rather than to performance (Cage, 1958b). Ironically, once completed, chance compositions can be binding with respect to performance much like any other conventionally produced work.

Xenakis (1996, p. 148) points out: ‘when one writes a piece one may think that one consciously controls everything, but in fact this cannot be the case’. Boulez, himself (1957/1991), conceded that the act of composition is itself a form of indeterminacy, where the composer is forced to choose from a series of open possibilities. In this sense, composing is a process of discovery in which the main ingredient is often one of surprise.

There is a problem with this terminology, however. It implies a polarization that pits determinacy on one side against indeterminacy on the other, which can be overstated and misleading. Creative freedoms could be characterised more accurately, perhaps, in terms of degrees of deviation. That is to say, it may be better to think in terms of gradations of the determinate or indeterminate. And a range of possibilities exists across the full gamut of parameters. Dividing musical characteristics into discrete elements, as a way of applying technical processes to each, is not, as has already been seen, a new procedure. Both Messiaen and Boulez have adopted this approach in their work: the former in *Mode de Valeurs et d’Intensités* (1949), the latter in *Structures 1a* (1953). But the literature does not offer any examples of this approach as it might be applied to more flexible procedures. For this project, therefore, an original series of tables has been drawn up as an expedient for outlining the range of individual and combinatorial possibilities available to each musical parameter. Indeterminate variations across three parameters are given below as an illustration of how a flexible approach towards pitch, durations and timbre might be formulated. (A more complete inventory of parameters is given in appendix 1.) Table 1a outlines the possible gradations in the use of pitch parameters, table 1b highlights time elements and table 1c illustrates possibilities for timbral variations. In these tables a scale has been devised, ranging from 1 to 5, where 1 represents the most, and 5 the least, flexible situation. Table 1c has a wider range of

possibilities, as it is evident that timbre is endowed with a broader scope of variations. The descriptions of each variation are provided in two ways: one outlines the situation formally, in terms of the effect on the parameters themselves; the other gives a more informal description of the musical result (Tables. 3.1 a–c).

Table. 3.1a. (Foster) Tabular scale for variations and permutations of flexibility. PITCH/TESSITURA

[1 = Most flexible →5 =Least flexible]

1	2	3	4	5
Complete freedom of choice over all pitch elements	Freedom of choice of pitch elements. But, control maintained over tessitura	Exact pitches given, but freedom of choice in the performed order	Given pitches to be played in stipulated order, but freedom of choice over tessitura	Play pitches in exact order given, in exact tessitura given.
'Play any note or series of notes, in any register'	'play any note, or series of notes in this particular region'	'play notes from this set in your chosen order'	'play these notes in any chosen register'	'play the score exactly as written!'

Table. 3.1b.
TIME: PULSE/ TEMPO/ RHYTHM

1	2	3	4	5
Tempo – free Pulse – free Durations – free	Tempo – free Pulse – free Durations – controlled	Tempo – free Pulse – controlled Durations – controlled	Tempo – controlled Pulse – free Durations – free	Tempo – controlled Pulse – controlled Durations – controlled
'Play a note/ notes in any time, at any speed, and for any duration'	'Play specific rhythm, but at any speed and in any pulse' [Implication for placement of accents]	'Play this rhythm in this pulse, but at any speed'	'Play any rhythm, but keep the bars at this speed'	'play these exact rhythms, at this speed, within this metre'

Table. 3.1c.
TIMBRE

1	2	3	4	5	6
Complete freedom of choice in number and type of instruments used, in tone-production techniques, and performed in any chosen location	Freedom of choice in number and type of instruments used, in tone-production techniques, but performance location controlled	Freedom of choice in number and type of instruments used, but control over tone-production techniques, and location	Freedom of choice in number of instruments used, but control over species of instruments, tone-production techniques, and location	Specific instrumentation given, freedom of choice in tone-production techniques used.	Specific instrumentation, tone-production techniques and location given
'play on any instrument or group of instruments in any location using any form of tone production, articulation etc.'	'play on any instrument or group of instruments using any form of tone production, articulation etc., but in this specific location'	'play on any instrument or group of instruments using these specific techniques and articulations, and in this specific location'	'any number of performers to play on this specific group of instruments using these specific techniques and articulations, and in this specific location'	'play on these instruments, but choose your own methods of tone production'	'play all timbral parameters exactly as outlined in the score'

It is not claimed that these tables are definitive. However, they have proved useful as templates for considering the more flexible aspects of the compositions in the portfolio, particularly the *Twelve Biomechanical Studies* and *Tilting Martha*.

One area where flexible procedures can be an extremely potent force is in the construction of forms and structures. A range of terms spring to mind when thinking about musical form: organisation, architecture, plan, shape, framework, order. The list can be extended. Too often, however, the implication is of something fixed or complete. It might be expedient to consider form and structure as different aspects of the same thing: one metaphorical, the other analogical. The formal aspects of a composition can be thought of as the shape of the whole — its external morphology. (It is important, however, to regard such architectural metaphors with circumspection because,

essentially, music is without an object-like ontology and a work's form is often only apparent on paper.) Structure, on the other hand, might be considered a more concrete analogue for the network of internal relationships that bind musical textures together: actual, perceptual and apparent in the fleeting relationships of passing sounds. In this analysis, structuring is instrumental in creating a unique identity for a work, each of its parts being related, in some way, to one another. Rosen (1976, p. xvii) suggests that one of the most important skills a composer should have is the ability to create the impression that a musical form has been freshly invented for the purposes of the work: 'called into being for the occasion'. It is a point well made. It discourages the notion that musical form should resemble stereotypical moulds into which the musical contents are 'poured'. In the introduction to her book on *Structure in Science and Art,* Wendy Pullan (2000, p. 1) points out that structure, like order, can, in fact, be open and dynamic: 'a matter of *structuring* as much as structure'. But this should be understood in a different sense to that of the 'open work' concept as portrayed by Eco (1959, pp. 1-23). Openness to structure implies discovery of a composition's morphology as part of the process of working with the material: form becoming an active agent in the compositional process. And, as an active agent, it becomes part of the material with which to work when composing.

For Langer (1957, p. 227), musical form (in the context of this discussion she means structure) is a kind of patterning that reverberates for us because it is a reflection of the movement of our inner lives: motion, rest, tension, release, agreement and disagreement, preparation, fulfillment, excitation and sudden change. These establish a narrative of inner movement that galvanises our energies. Such ebbs and flows are a characteristic of other art forms also — particularly film, literature, and painting — which is why they provide such rich sources for compositional inspiration.

Table 3.2 (Foster) Tabular scale for variations and permutations of flexibility.
FORM & STRUCTURE:
Definitions:
Forms = macro organisation
Structure = micro organisation

5	4	3	2	1
Complete freedom of choice in all material designations and macro durations	Complete freedom of choice in all material designations, but macro durations are given	Complete freedom of choice in micro durations and attack, but number of voices, pitches and macro durations given	Complete freedom of choice in order of material designations, but all material designations and macro durations given	Play all material designations as given, in precise order given, and in precise durations given
'any number of players play any material of your choice, for any length of time' *[effectively negates forms and structures]*	'any number of players play any material of your choice, but for this length of time'	'a specific number of performers on any instruments play the following pitches in any rhythm, with any form of attack and articulation, but for this length of time' *[e.g. mobiles 1]*	'a specific number of performers on these instruments to play the following material for this specific duration, but in any order' *[e.g. mobiles 2]*	'play the score exactly as written!'

Creativity thrives on dichotomies, tensions and paradoxes, and compositional procedures are perpetually confronted with them. They way in which materials and processes are managed and the intentions for the 'life' of a work — what it seeks to observe, explore, critique, suggest and so on — are two such areas of potential conflict. The impulse to organise material into a logical and workable form in order to produce something that coheres, is often at loggerheads with the need to establish a free, flexible and open space for the creative exploration of ideas. The way in which this relationship is managed determines the impact that a work might have: its balance of forces, its directness and its effectiveness as a creative investigation. Both also have a direct bearing on compositional technique. In a sense, technique constitutes a specific response in the attempt to accommodate these tensions.

Chapter Four
Twelve Biomechanical Studies for Four Instruments

This was the first composition to be completed in the portfolio. It is a compendium piece, assembled from twelve individual studies: three each for flute (*Biomechanical Studies nos. 1–3*); oboe (*Biomechanical Studies nos. 4–6*); bassoon (*Biomechanical Studies nos. 7–9*); and viola (*Biomechanical Studies nos. 10–12*). These are supplemented by a set of four Interpolations.

The combination of exactitude and flexibility is an important characteristic of this composition. Many features of the work are prescribed — including the material and its structure — but several elements remain open to performer interpretation, each of which will be discussed in turn:

- Texture and timbre (performance combinations)
- Combination of materials
- Pitch (choice of clefs)
- Hiatuses (timing and duration of pauses)

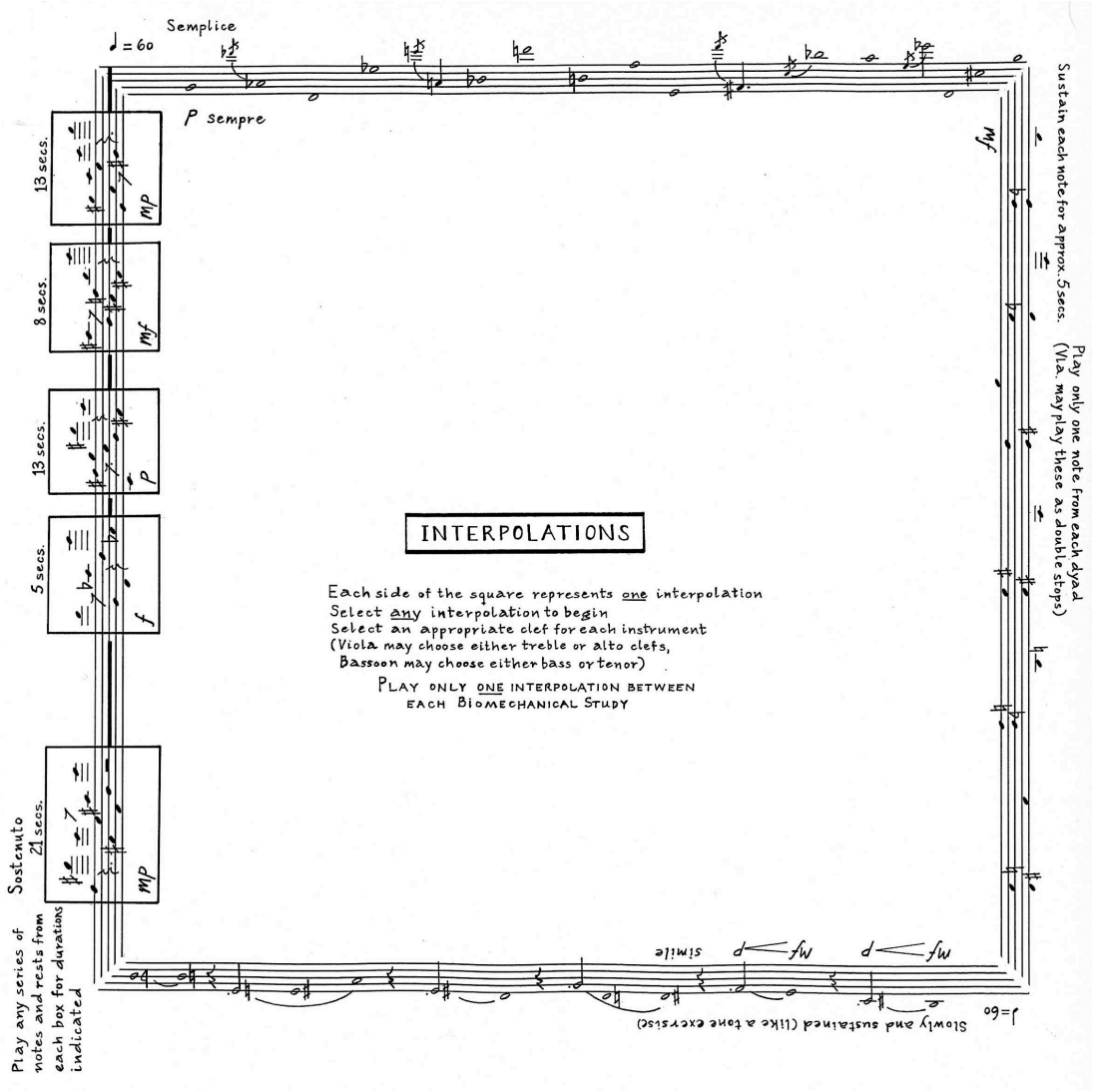
This piece may assume a variety of identities because a number of different performance combinations are possible: from individual solos, duets or trios, to a complete four-part ensemble. Performed in ensemble, the players begin together but thereafter make no attempt to coordinate the parts. Indeed, each study should be regarded as an independent and isolated piece occupying its own place within a shared performance space. Consequently, the score exists only as a set of individual parts[9]. The Interpolations are an important exception to this process. These function, ostensibly, as 'rest' periods, but they also furnish the ensemble with an opportunity to reconnect and

[9] A composite score has been compiled as a reference to demonstrate one possible performance outcome.

reassemble in a situation analogous, perhaps, to an informal group conversation. The two main points of contact for the ensemble, then, are at the very opening of the piece and at the beginning of each Interpolation, and the performers should ensure that they start these sections together (although not necessarily end together). This establishes an interesting dynamic not only for the material but also in performer relationships. The Studies represent the 'onstage' working aspect, whereas the Interpolations characterise points of relaxation, 'backstage' as it were. The musicians, perhaps imagined as character actors, briefly leave this imagined 'stage', meet, and return independently at various points throughout the performance.

Each player is provided with the same set of Interpolations. Unlike the Studies (which are to be played in the given numerical sequence) no specific order is stipulated here, the choice being left to the discretion of each performer. To avoid any suggestion of ordinal hierarchy, therefore, the Interpolations are unmarked (unnumbered) and printed on a square stave. Each side of the square constitutes a single Interpolation (Ex. 4. 1).

Example 4. 1.
***Twelve Biomechanical Studies*: sheet of Interpolations. Each side of the square represents one interpolation.**



In an ensemble situation the chances of coincidence vary considerably. Thirty-six permutations are possible between four instruments and four Interpolations — including the interesting scenario that two or more performers might, perhaps, alight on the same Interpolation together.

A degree of redundancy is evident here, since, although four Interpolations have been written, only three will be played in any given performance by each player. This broadens the scope for alternate performance outcomes even further, bringing to mind Eco's observation that for the open work each performance may '*explain* it, but does not *exhaust* it' (1989, p. 15). Clefs are not provided for the Interpolations; again, these

are interpretative, and the players are encouraged to select their own, as appropriate (the bassoon, for example, may interpret the pitches in either the bass or tenor clef, the viola in the alto or treble clef).

Turning to the Studies themselves, a further indeterminate element is found in the feature of the hiatus. This is one of the defining characteristics of the work. Linked conceptually to Vsevolod Meyerhold's *Biomechanics* and the photographic plates of Eadweard Muybridge (see discussion below), this feature — in the shape of the fermata/rest — is used to divide lengths of melodic material into shorter, segmented units. The duration of these pauses is interpretative, each performer determining the precise length from a graduated range between 1–21 seconds. The following signs are used in the score to indicate these (Ex. 4.2):

Example 4. 2.
***Twelve Biomechanical Studies*: signs used to indicate range and duration of rests.**

As will be evident, the durations for these rests are structured, approximately, around the Fibonacci series of proportions, and the scope for variation is increased with the longer pauses.

The overall structure of the work comprises three studies, after each of which an interpolation is inserted. The piece ends after the final interpolation has been played (Fig. 4.1). Consequently, the action is completed metaphorically 'offstage' rather than 'onstage'.

Figure 4. 1.
***Twelve Biomechanical Studies*: outline of the complete form of the piece.**

Study 1 — Interpolation — **Study 2** — Interpolation — **Study 3** — Interpolation

Conceptual Background: the Initial Idea, its Growth and Development

The *Twelve Biomechanical Studies* are not musical studies as conventionally understood: they are not, that is, vehicles for the development of instrumental technique. What they attempt to investigate, essentially, is the nature of musical narrative, and, in particular, the illusion of continuity constructed from discrete sequences of events. It references and tests the idea that music is an art form operating perpetually on the edge of its own oblivion. Sounds heard in the present moment quickly dissolve and vanish: a phenomenon of 'coming-to-be and passing-away' that establishes an all-important characteristic of music, with, perhaps, philosophical (and, indeed, spiritual) implications. Sounds heard in the present never entirely die, however: they remain active, if only as a trace, in the listener's short-term memory. This allows subsequent sounds to be linked into imagined chains. Viewed in this way, the listening process is one that is always active as individual events are coupled together by the listener into a connected stream.

By taking this approach I am not seeking to invoke Stockhausen's (1991, pp. 33-42) notion of point (*Kontra-Punkte*, 1952) or group music (*Gruppen*, 1963a); this is not an exploration of the nature of musical material in that sense. The questions being posed by the *Twelve Biomechanical Studies* concern the effect of different listening perceptions on narrativity: is continuity an illusion? Does the 'frozen surface', in fact,

present the underlying reality? What are the implications of highlighting and making more 'visible' the connective listening process? How much of what is actually heard is the result of personal wish fulfilment — the result of what might be expected — as a response to our understanding of what constitutes a musical continuum? Is anything obscured or sacrificed as a consequence of these listening habits? All of these questions challenge our understanding, perhaps, about what it is we hear when we think we hear a sequence of individual sounds as music (or a string of single events as continuity). Drawing on Scruton's analysis (1996, pp. 9-13), if an event is understood as a fixed episode tied to a specific time and place then processes could be characterised as an ongoing series of episodes through time: the former implies an abrupt change, the latter prolongation and anticipated continuation. This, again, throws up some interesting questions about the influence each has on how music is experienced. How are musical events and musical continuities distinguished from one another in light of this? What do we make of the relationship between the two? What is the aesthetic effect of each? Is there an actual duality, or do moments of ambiguity and elisions occur? When sequences of sounds are slowed or fractured in some way different perceptions of continuity become possible. By making adjustments to the flow of the musical discourse our listening attitudes may be challenged, providing for us an opportunity to perceive more clearly, perhaps, the habitual expectations we have towards musical progression. Another perspective in this investigation is one that draws on, and interrogates, the different aspects of time, as discussed in the previous chapter — particularly the (ostensible) dichotomy between chronological time on the one hand, and psychological, or perceived time, on the other —Stravinsky's '*chronos'* (1947, p. 30).

Meyerhold, Muybridge, Fragmentation and Continuity

The catalyst for this investigation arose, in fact, from a study of the *Biomechanics* of the Russian theatre director Vsevolod Meyerhold (Wittenbecher, 1997), supported and amplified through subsequent interest in the photographic work of Eadweard Muybridge (1955) on human and animal movement. This was further informed by the writings of the previously discussed, Russian Formalist critic, Viktor Shklovsky. In order to contextualise my composition within this broader discourse, a brief account of the work of Meyerhold and Muybridge is included here. What follows is a concise discussion of some of the underlying notions that formed the impetus for this work.

Meyerhold's *Biomechanics* and Muybridge's photographic plates, then, were taken as the points of departure from which to explore some of the questions raised above from a compositional perspective. One of the most alluring aspects of the work of both is the impression of isolation *in* motion. The line between action and event becomes blurred, and a creative tension is clearly apparent between the two, producing a sort of 'stop-go' energy. The act of segmenting individual phases of movement somehow magnifies, and draws attention to, the detail of the forms, and also emphasises the timeframe in which they occur. Individual moments that are normally obscured by a continuous, narrative flow are suddenly projected into the foreground. The resulting 'strangeness' of effect references Shklovsky's theory of defamiliarisation. The unusualness of the presentation promotes a renewal of perception that draws the attention to activity normally overlooked, compelling one to take notice. Here the presentation of material is slowed down, drawn out or interrupted, and the techniques of protraction and delay force us into a more attentive perception of the action (Selden et al., 2005).

In his set of *Biomechanical Études* for actors, Meyerhold designed a series of stylised exercises as a means of promoting a conscious understanding of the basics of movement for theatrical work (Whyman, 2008). In these exercises actions are reduced to their basic elements, becoming greatly emphasised and highlighted in a series of movement phases. What emerges, aesthetically, is a new context for continuity in movement. And when introduced, they established a new style of semiotics to express a formalist approach to theatricality — a new aesthetic and style of performance with a new set of symbols for expressing content. Some of these *Études* have been preserved on film and in photographic archives (Fig. 4. 2. *Shooting With the Bow*) (Strasberg, 1973, p. 113–116)[10].

Figure 4. 2.
Biomechanical *Étude*: short sequence from *Shooting With the Bow,* (1934). Strasberg.

[Image removed]

[10] See also Meyerhold's biomechanik: in collaboration with Gennadi Bogdanov, (1997) Directed by Wittenbecher, T. [Video]. Germany: Mime Centrum Berlin.

The exaggerated non- (one might say anti-) realistic attitudes presented by this extraordinary series of movements is clear. They engage the attention precisely because they are so 'strange'. The question is raised in the viewer's mind: in what sense can these actions be perceived as the shooting of a bow? Here the content is subservient to the formal execution of the act, recontextualising habitual notions of expression and movement.

Again, together with the Formalists, Meyerhold opposed the ideal of representation and naturalism in favour of an approach that acknowledged and emphasised the overt theatricality of theatre. In order to achieve this, he reverses the hierarchy in the relationship between content and formal technique, focusing firmly on method as the means towards a conscious rationale for movement (Meyerhold, 1969). He does this principally through the formulation of the 'acting cycle'. In this notion, each movement is divided into three different phases: *Otkas* (lit. 'refusal') which denotes the origin of a movement, but also implies mental preparation and a refusal to respond precipitously; *Posyl* (lit. 'sending') which indicates not only the execution of the intended movement but also signifies a consensual state; and *Stoika* (lit. 'stance'), which represents the end point of each phase of movement, and connotes cadence and momentary rest (both mental and physical) in preparation for the beginning of a new phase (Berlin, 1997) [11]. This cycle may be summarised more succinctly as the intention–realisation–reaction phases of a mobile continuum. It is this aspect of the work that is central to the

[11] Although the ideas underpinning Meyerhold's *Biomechanics* were specifically rooted in the principles of Russian Formalism at the beginning of the twentieth century, they were part of a more general and widespread body of interest in both the mechanics of human (and animal) movement, and in work efficiency. Notions of economy and effectiveness, of minimum input towards maximum output (effect)— where the performer seeks to elicit the desired emotional response from the audience by means of a limited set of standardised principles of movement (Gordon 1974) — are drawn from aspects of the work being done on scientific management (Taylor, 1967).

conceptual model for the structures and material in the composition, and attention will be drawn to these ideas again in my analysis later.

From a slightly earlier date, exciting developments were also taking place in the field of action photography, particularly in the work of Muybridge. In a series of photographic plates, taken as part of a project dating from 1872–1885, the precise details of the human figure in motion were recorded for the first time. These have been available in print since they were first published in 1887 (Braun, 2010, p. 7). The following plate, taken from a 1955 reprint of his work, demonstrates a 'Man performing running broad jump' (Fig. 4. 3) (Muybridge, 1955, pl. 27)

Figure 4. 3.
Eadweard Muybridge: *The human figure in motion* (1887) Plate 27. Man performing running broad jump.

[Image removed]

Muybridge's interest in producing these photographic experiments was scientific rather than aesthetic. Nevertheless, they present a neat parallel to Meyerhold's work; the individual phases of movement are magnified, revealing certain aspects of action that are obscured at normal speed. In the above illustration, for example, the distribution of energy in the lower limbs during ascent can clearly be seen to transfer into the upper body in the descent phase. It is an interesting case in point.

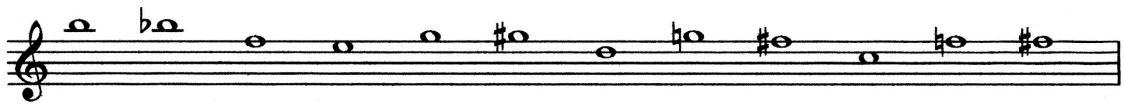
This material has been used to create some interesting musical parallels. What might the individual phases of musical continuity reveal if presented in something like this manner? There are some alluring aspects: (i) The slicing of musical material into sample-like fragments; (ii) the relationship between sound and silence; (iii) the way in which material may be defamiliarised to emphasise its characteristics and its place within a given timeframe, where actions are slowed down, drawn out, or interrupted, and where techniques of protraction and delay are employed; (iv) how a performer might react to, and deliver, that material. In the *Twelve Biomechanical Studies* I investigate all of these possibilities and what they might imply.

Devising the Material: Pitch Elements

Shklovsky's (1917, p. 12) declaration that 'Art is a way of experiencing the artfulness of an object; the object is not important' raises some interesting questions about the invention and function of material. Event and continuity are the main points of emphasis in this composition: that is to say, the way in which the material is presented establishes the main focus, not the quality nor originality of that material. Notwithstanding, the material used for this composition has been newly devised, and a brief account is presented here to establish how it was formulated. As an expedient for generating pitches, a (non-serial) note row — or, more accurately, a string of pitches — was created. There is a strong sequential aspect to this string, with a repeat of the interval sequence 0–1–5 and 0–5–1. What is most clear to the ear is the sense of a falling semitone, a falling perfect fourth and a rising semi-tone. These sounds establish the basic character of the pitch material (Ex. 4. 3) [12].

[12] From the perspective of a pitch-class analysis this figure produces the set [0, 1, 6, 7] which has an interval vector (200022). The complete interval profile, then, is: (i) minor 2nd/major 7th, (ii) perfect 4th/5th; (iii) minor 3rd/major 6th, (iv) and a tri-tone.

Example 4. 3.
***Biomechanical study*. Underlying pitch structure.**



These intervals make up the structure of most of the material throughout. Absent from this profile are the intervals of a major 2nd, major 3rd and minor 6th. However, I have not approached this set strictly; it is simply used as a rough template from which to generate pitch material. Consequently, the missing intervals may also be found, and they do add a hint of 'spice', as they conflict, to some extent, with the established sound world. (Whether or not such gestures are entirely audible to the listener is a moot point, but they do provide a useful compositional strategy from which to work.) Having achieved these pitch characteristics the usual operations are brought to bear, generating a wider scope of possibilities for manipulation in the individual parts: inversions, mirrors, etc.

Devising the Material: Durational Elements

Nowhere in the *Twelve Biomechanical Studies* will metrical indications be found. The notion of musical time, commonly understood as a metrical subdivision by equal parts, represents a perception of time that is essentially mapped out and articulated in pulses or regular, periodic stresses. Many have been keen to revise this concept of time in Western music. Henry Cowell (1996a, pp. 45-108), for one, argues for other possible perceptions; Messiaen is another, with his exploration of additive techniques in, for example, *Danse de la fureur, pour les sept trompettes* from his *Quatuor Pour la Fin du Temps* (1941). Metrical rhythm imposes an important, artificial constraint on the organisation of sounds in time, but, in the external world, it is a phenomenon largely absent from the general ebb, flow and movement of objects.

The rhythmic characteristics of this piece relate more closely to the action of movement and arrest evident in the work of Meyerhold than to musical conceptions aspiring to greater periodic regularity. Arrived at principally through an exploration of the material, the metrical concept of rhythm is abandoned in favour of freer, durational elements, devised as an articulation of the impulse and arrest inherent in movement. In laying out the material, therefore, a variety of phrases were 'improvised', built up from a series of simple, irrational note groupings that create a characteristic to-and-fro time pressure.

Once an approach towards the pitch and durational aspects of the piece had been formulated, an extended string of generic material was composed. It was not decided, initially, where or how this material would be used: it was simply amassed as a common fund of ideas, open to possibilities for any part of the composition. The work of Meyerhold and Muybridge also suggested a visual approach for constructing the music. In a procedure analogous, perhaps, to film editing, lengths of material from the musical 'rushes' were cut into shorter fragments and used as individual 'frames' from which the music could be assembled. It is this aspect that most closely reflects the central theme of this piece. Important gaps are created between multiple strings of material, producing intriguing breaks in each of the narratives.

Devising the Material: Characterisation

The characterisation of this material is important, and, in formulating it, reference has been made, again, to some of the essential traits of Meyerhold's studies. Exaggeration and the magnification of movement were the foremost functional considerations here, and the material is designed with this aesthetic in mind. A list of the basic traits for this material was compiled:

(i) Contra-naturalisms: angularity, grotesqueness, exaggeration, etc.

(ii) Stylised theatricality of gestures 'unpicked' to reveal their underlying elements: directional melodic trends (upwards, downwards, alternating); limited rhythmic groupings; sudden hiatuses to create an isolation of material; and sustained sounds, etc.

(iii) Fluctuations in the speed of delivery: ebb and flow in the speed of each unit of material, and the unfolding of movement — slowing, quickening, sustaining.

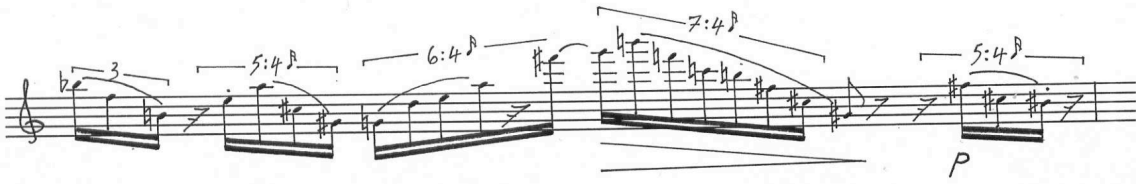
(iv) Graded pitch variations: fluctuations in tessitura — presentation of the material in different regions to explore the timbral spectra of the instruments.

(v) Expressive juxtapositions: including variations in notation to suggest to the performer different expressive aspects of the material.

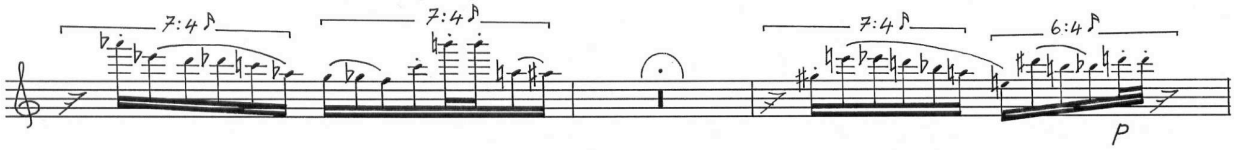
The challenge was to produce a range of expressive material from this restricted gamut of formalised ideas. This approach references Meyerhold's regulated use of a limited set of gestures. By way of analogy, the material here is restricted to a finite number of compositional 'memes': i.e. to a few stylised ideas in each study. This can be seen in the three studies for flute, where a different basic device comes into play in each. The characteristics of this material thereby function as a structural element, delineating a trait of movement for each study, each establishing its own identity through a different morphology. Study no. 1, for example, is characterised by alternate rising/falling patterns, Study no. 2, by a series of predominantly falling patterns, and Study no. 3, by predominantly rising patterns (Exx. 4. 4 a–c).

Example 4. 4 a–c.

a) *Biomechanical Study No. 1 for flute*. Stylised rising/falling pitch patterns.



b) *Biomechanical Study No. 2 for flute*. Stylised falling pitch patterns.



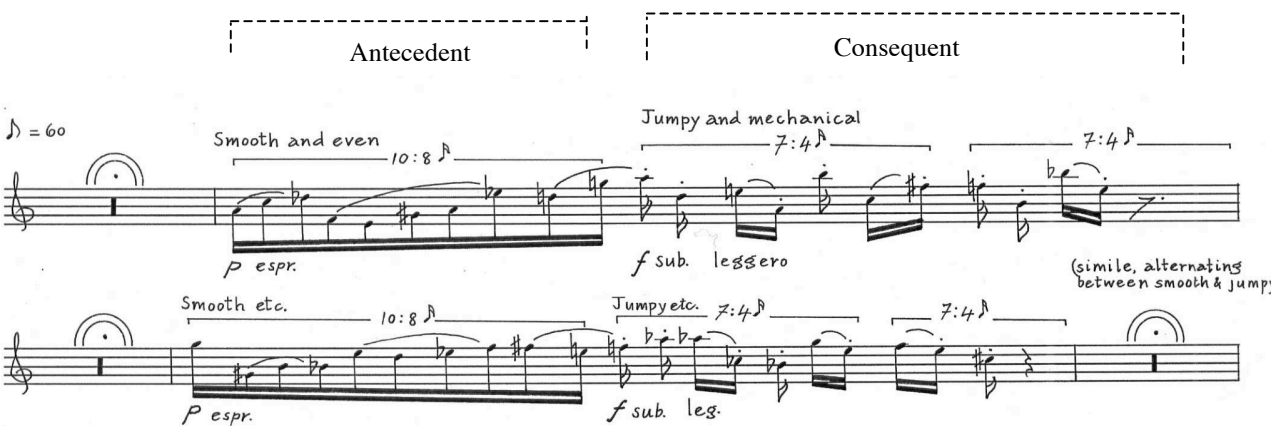
c) *Biomechanical Study No. 3 for flute*. Stylised rising pitch patterns.

As each segment of music expands, two additional techniques (discovered in the work of Brian Ferneyhough, e.g. *Superscriptio* (1982)) have also been referenced. One is 'figural enhancement', where rhythmic ideas accelerate towards the ends of phrases. The other is the figural negative, where rhythmic ideas become retrograded or where notes are substituted for rests.

Stylised processes occur similarly in the other studies. In Study no. 5 for oboe, for example, the music processes through an alternating sequence of antecedent (expressive legato) and consequent (angular staccato) phrases throughout (Ex. 4. 5).

Example 4. 5.

***Biomechanical study No. 5: Oboe*. The juxtaposition of stylised antecedent and consequent phrases.**

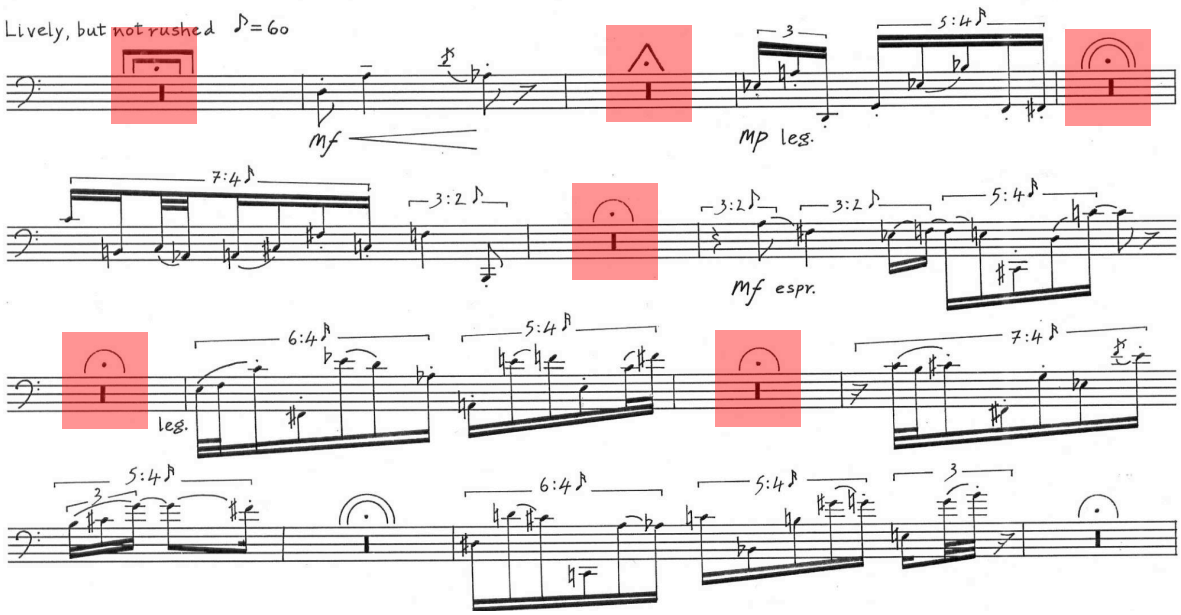


These examples demonstrate the essential stylised treatment of the material and, what might figuratively be described as, the 'biomechanical' processes of the music.

Fracturing the Narrative Structure

This piece explores the dichotomy between discrete events and continuous processes. As stated above, the initial material was written in extended strings, which were then edited into shorter fragments. This is clearly visible in the score, prevalent in the pauses placed between each 'frame' of material (Ex. 4. 6).

Example 4. 6.
***Biomechanical Study No. 7: Bassoon*. Showing the insertion of pauses (highlighted) between 'frames' of material.**



These are key components. The fracturing of the action — such a prominent feature in Meyerhold and Muybridge's work — produces 'islands', or 'snap-shots' of isolated material. The sense of disjuncture is made all the more acute in light of the material's origins as extended melodic strings. In our listening experience, however, these 'snap-shots' might effectively remain connected, but the ear is strongly tested as the memory attempts to hold on to the previous musical image whilst projecting forward. It is the

prolongation of expectation that is being challenged here, and the silences become important markers that agitate the process. Encapsulating moments of fleeting activity in this way seems to magnify the contained energy, intensifying the impact of each event.

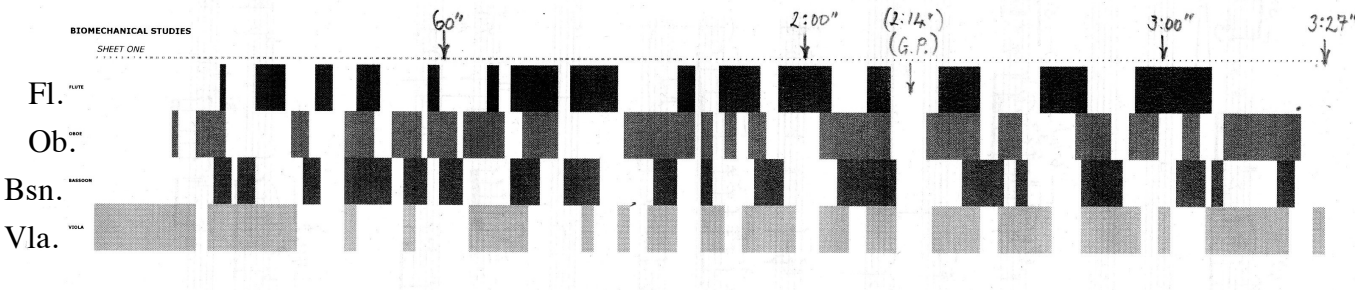
Some intriguing questions arise from this procedure: is silence perceived as a passive or active element in the listening experience? When silences are used to 'bookend' processes, are they, themselves, heard as the main event, and, if so, how does this re-contextualise the sounding material? It is possible to draw a banal parallel between these musical disjunctions on the one hand, and the Meyerhold/Muybridge frames and cadences on the other, but this resemblance should not to be regarded simply as a form of imitation. These silences are an integral part of the music; they are active rather than passive, emphasising the material that surrounds them, energising its movement and delineating its form. Indeed, the silences are as important as the sounding material and should be actively performed with this in mind. In the context of this, it is important that the performer maintains an alert poise to sustain the tension of expectation inherent in them. From a phenomenological perspective, silence and sound are constantly present to each other. Morton Feldman suggests that silence should be thought of as analogous to the 'wash' on a canvas, with musical notes forming the 'paint' that sits upon it (Visscher, 1997, p. 201). In Stockhausen's *Klavierstück X* (1973) long stretches of silence produce sudden blackouts, but, as Roger Smalley says, 'the music may be imagined as continuing as it were underground'(Maconie, 1976, p. 151). In this respect, silence has a constant presence, emerging as if through open 'windows' in the sound, presenting an underlying transparency to the surface.

The interpolations, perceived as interruptions to the flow of the general musical discourse, perhaps parallel, on a larger scale, these more localised silences. They also establish a unifying function, because, unlike the main sections, the same body of material is used for each instrument.

Performance Possibilities

As already indicated, each study may be performed alone or together in a variety of combinations. When performed as an ensemble it is intended that the instruments should synchronise only approximately. The performer should treat each study as an independent piece, occupying its own place, as it were, within a shared performance space. Flexible exactitude is the watchword. Structural coherence is achieved by means of a grid plan, which outlines the overall, approximate durational sequences (Fig. 4.4).

Figure 4. 4.
***Twelve Biomechanical Studies*: Grid Plan. Stage One (read from left to right). Showing the approximate durational segments for each study, together with hiatuses (blank spaces), within the overall texture. Approximate timings are hand-written above the chart.**



This presents the possibility for a range of loosely defined outcomes: a flexible number of permutations of simple and complex textures and timbres. This idea has been used successfully elsewhere. Merce Cunningham, for example, in his dance piece *Changing Steps* (1974), uses a split-screen technique to bring multiple dances together into the same visual space (Fig. 4. 5). This presents some interesting and unusual juxtapositions of movement, and it extends the range of possibilities for performance.

Figure 4. 5.
Merce Cunningham: *Changing Steps* (1974). Merce Cunningham Dance Company. 00:00:51

[Image removed]

Andy Warhol adopts a similar approach in his film *Chelsea Girls* (1966), where, again, the split-screen produces a 'polyphony' of visual activity presented in the same visual arena. Each scene fulfils a dual purpose, being both self-contained yet interacting with neighbouring scenes. The context is thereby altered, which changes the way each is perceived (Fig. 4. 6).

Figure 4. 6.
Andy Warhol: Screen shot from *Chelsea Girls* (1966). 'Hanoi Hannah and Guests' 01:10:46

[Image removed]

Working on the *Twelve Biomechanical Studies* has given rise to some interesting and unexpected questions about the problems inherent in the construction and development of musical narrative. Building polyphonies of structure from superimposed (and juxtaposed) sequences of discrete units has challenged my own working methods and given me new insights and ideas about possibilities for form and structure in composition. It also calls into question assumptions about the nature of the composition as a definitive work, gently challenging the supposition that a work of art, in order to uniquely identify itself as such, must be firmly delimited: a 'product' rather than a 'process'. An openness of approach is encouraged, which suggests that the boundaries framing a work can become, to a degree, 'porous'. Each performance of this work, to quote Eco again, may '*explain* it, but does not *exhaust* it' (1989, p. 15).

Referring back to Scruton we arrive at a definition of some of the properties of process as such: processes require 'participants', and 'happenings through time'. Participants — the pitches, durations, etc. — need to work together towards a shared, identifiable end, and this shared way of working can manifest on a number of levels. The 'participants' share a number of relational characteristics and a common aim.

Meyerhold's *Biomechanics* seek to reveal how outer gestures spring from, and are consonant with, a more fundamental inner core (Wittenbecher, 1997). In the *Twelve Biomechanical Studies*, the performer, by taking ownership of the physicality of the music, is encouraged to explore the expressive content characterised in the physicality of the material, and to engage with, direct and shape the progress of the composition — not by an empathy for naturalism in phrasing, etc., but by prioritising the physicality and the external characteristics of the material: the stylised musical figurations, the rhythm of the phrase structures and the timing of the enforced silences and individual

units of material. Meyerhold's work is located somewhere in behaviourist philosophy, and treats human action as little more than a collection of standardised responses to a given set of external stimuli — we behave like bio-machines. The element of choice incorporated into this composition, however, is strongly founded on the assumption of 'free will', where the self-determination of the performer is exercised through choices made in the length of each hiatus and the ordering of Interpolations. This element establishes a certain openness of form in the piece, but it also gives the performer some leeway to influence the direction of the composition. The performer is encouraged to have a stake in the outcome of the piece. This concept of indeterminacy is, admittedly, a limited one, and is, perhaps, nearer in conception to Gaston Bachelard's (1994, p. 128) notion of *Desire Lines*, where one is presented with certain given points of ingress and egress, between which alternative routes may be mapped out by the performer. Through these elements of choice this composition represents, in some respects, an argument for a structured free will, and ultimately stands as a critique to the behaviourist standpoint.

Chapter Five
Ariach all Gabbe Levena

The processes of interaction and independence investigated in the *Twelve Biomechanical Studies* are extended in *Ariach all Gabbe Levena*, but addressed here from a different perspective and with an entirely different set of materials. This composition is scored for viola and piano, and written for a friend and colleague, Peter Gumbley, who, for a number of years, played viola in the Bournemouth Symphony Orchestra. His interest in Jewish music led to a request for a piece that would provide him with an opportunity to explore not only the materials, phrasing and expression inherent in that music, but also a fresh approach towards viola technique. What emerges is an essay in personal interactions between composer and performer, in which the richness and diversity of individual musical perceptions, experiences and individual testimonies provides a major impetus.

The decision to make this a work for two instruments (rather than one) crystallized out of the need to represent divergent points of view. This piece, therefore, resists the notion of the unified statement. It is neither a duet nor a solo with accompaniment, but an investigation of coexistence: each an autonomous voice, each following its own trajectory, each offering an alternative narrative to the other. The fluid lines of the viola present an alternative 'other' to the shorter, more metrical piano sections. The simpler piano lines are integrated into the structure rather like links in a chain, providing not only a change of perspective but also a replenishment of timbre. The two voices should be approached, then, as independent lines, operating within a single dialogical space. These divergences, however, are approached with an eye to establishing possible interactions and reconnections. The way in which the piece is constructed and notated plays a key role in this conception.

Defining the Compositional 'Problem Space'

This piece, then, grew out of a desire to explore duality within the context of a distant sound world and the problematic forms of expression that it might evoke. It engages transtextually with material derived from ancient Jewish cantillation. A search through the literature uncovered several key texts that have helped in identifying and isolating this material: Abraham Idelsohn's *Jewish music in its historical development* (1967); Eric Werner's *Hebrew music* (1961); and Aaron Rothmüller's *Music of the Jews: an historical appreciation* (1954). All were useful to the research, but, of the three, Idelsohn's survey of Hebrew cantillation proved to be the most fruitful [13]. Jewish music, Idelsohn tells us, is 'the result of the spiritual life and struggle of that people' (p. 24) [14]; their life infuses it. Cultural sensitivities arise from this: how is it possible to find a pathway through this resource within the purview of a Western aesthetic? How does one draw on these ideas, and on this material, without perpetrating acts of mimesis or cultural caricature? Rather than attempt to evoke (or imitate) a perceived style or language, therefore, an intertextual strategy has been adopted whereby the technical principles of musical construction are isolated and abstracted, and later filtered through the compositional processes and language of the composer. This seemed the best way of avoiding the trap of orientalism.

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[13] Although this book is a précis of a much larger encyclopaedic work, it nevertheless contains a wealth of musical examples — scales, melodic fragments and other musical illustrations — which provide a rich compendium of source materials.

[14] As Idelsohn suggests, there are some difficulties in fully understanding ancient Hebrew temple music. Although details about instrumentation and the manner of performance are available, the principles of composition are nowhere recorded in writing. Fortunately, as Idelsohn points out, Hebrew song has a strong oral tradition, and today elements of it remain evident in some synagogue worship. Furthermore, in its origins, it is closely related to neighbouring Oriental cultures, sharing many of its traits, and details of the compositional practices of those cultures *are* known.

In his book, Idelsohn adumbrates some of these key compositional principles, which derive from temple settings of the five books of the *Pentateuch*:

(i) Principles of scales, modality and motives: scales are understood in the Western sense, as abstract ladders of pitches. The modes and motives, conversely, are a linked concept, where short 'melodicles' are formed from the scales (Steve Reich uses this technique in *Tehillim* (1994); and Lou Harrison, similarly, in his later works (Miller and Lieberman, 2004, p. 14; Harrison, 1971, p. 85)).

This led to:

(ii) The principle of assemblage: where basic motives are built up into longer chains of material; it is a technique familiar to Western music, found in the formulaic construction of plainchant, for example.

(iii) The principle of the shared common fund (of material): composers of medieval church music were reluctant to devise new material. Music was formed from a common fund of plainchant melody in the spirit of perpetual recapitulation.

(iv) The responsorial principle: there are a number of different approaches to this: from simple repetitive refrains through to antiphonal responses of diverse material between opposing groups. The responses present a reflection on the material, adding a commentary, or 'gloss'.

(ii) The ametrical principle**:** there is no concept of pulse or metre in this music; it consists entirely of arrhythmic melody. The viola part (as will be seen) is built largely around this principle.

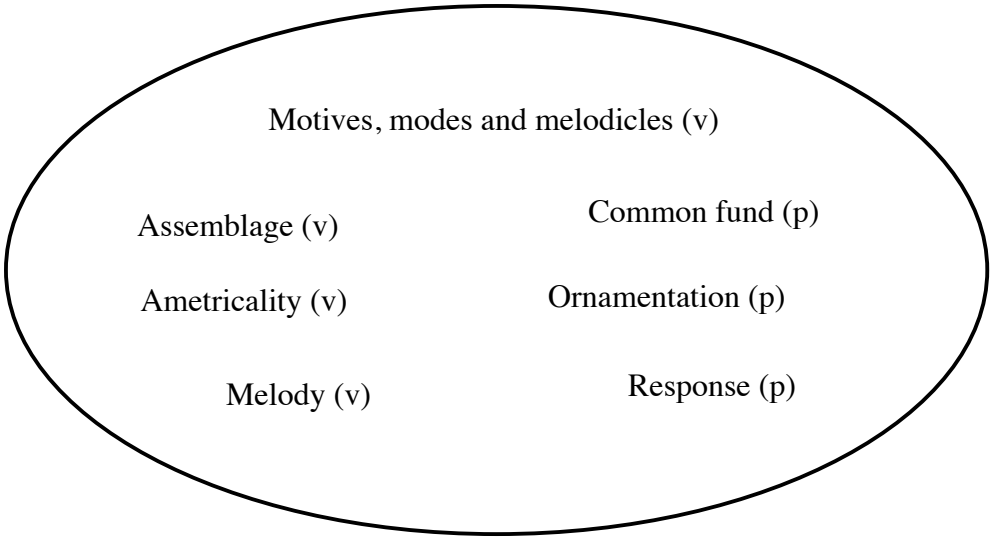
(v) The melodic principle: harmony is absent from Semitic-Oriental music, which consists entirely of monody.

(vi) The principle of ornamentation: there are no unadorned, sustained notes in Hebrew cantillation; pitches are either short or, where extended, sung with tremolo or other types of embellishment.

These principles form the primary group of components in the initial 'problem space'[15] for the piece, where they confine, give a focus to and play a significant role in its processes and construction (Fig. 5. 1).

[15] As already discussed, preliminary compositional procedure may best be characterised as one of clearing the ground to create an essential 'problem space': of marking out the territory, to confine the task, and to focus on, and formulate praxis. The various elements that are identified and placed within this 'space' provide the initial material that determines the direction in which the musical discourse might develop.

Figure 5. 1. Ariach all Gabbe Levena
Primary components in the compositional 'problem space'. (The parenthetical 'v' and 'p' = 'viola' and 'piano', and isolate the different principles on which the construction of materials is based.)



As previously indicated, the two instruments are conceived as independent agents, each forming their own musical narrative through the piece. This duality is emphasised by an approach in which the construction of each part is underpinned by a different set of compositional principles. The viola music, for instance, is built on the principles of assemblage (newly composed) of ametrical material, utilising the scales and certain characteristics of the modes (see below). The piano part, alternatively, adheres to the principle of the common fund, with material derived directly from the pre-existing motives found in Idelsohn. This material is intertextually altered and transformed, however, with rhythmic adjustments and various forms of embellishment and ornamentation. In this way, different types of material are moulded to each instrument: (i) long, melodious tracts, for the viola; and (ii) shorter, more tightly focused segments for the piano. The latter repeatedly interrupts the narrative flow of the former, and, in so doing, references (tangentially) the responsorial principle. The remainder of this commentary provides a detailed account of each of these elements in context.

Constructing the Piano Material: Exploring Modes and Motives

Compositional praxis, as already seen, has often been based on the manipulation of known, shared materials, rather than on innovation and the creation of new materials (which was considered profane in some historical contexts). The piano material is made largely from chains of pre-existing motives which are inserted into the music as 'found objects'. These vary in complexity from very simple, two-note figures, to more extended, ornamental flurries. Idelsohn lists a number of them in his book taken from a range of traditions across the Diaspora. In the following example, short figures contained between each of the vertical lines represent individual motives from which the longer melodic structures are spun together (Ex. 5.1).

Example 5.1
Abraham Idelsohn: *Jewish music in its historical development*, pp. 44–45. Some of the traditional motives used in settings of the *Pentateuch*.

[Image removed]

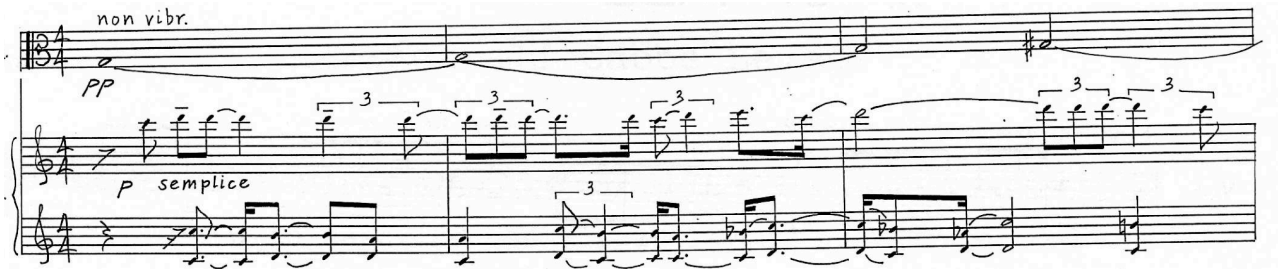
Although these motives are not subjected to *Grundgestalt* type development, a number of operations are possible once they are located within a melodic line — including the 'usual suspects': inversion, mirror, augmentation, diminution, extension, and contraction. Those that have been 'cherry-picked' for use in the piano part are selected on the basis of greatest potential contrast. The first motive to appear in the piano is taken from a setting of the *Song of the Sea* from *The Book of Exodus* 15: 1–18 (1997, pp. 83-84), shown first in Idelsohn then as it appears in context in the piece (compare examples 5.2 a and b).

Example 5. 2 a.
Idelsohn, p. 49. Exodus motive: *Song of the Sea*. (Yemenite).

[Image removed]

The psalm-tone-like repetition evinces the basic characteristic of this motive. It achieves a simplicity that offers a powerful counterpoint to the lengthier, more discursive,

Example 5. 2 b.
***Ariach all Gabbe Levena.* Piano: Exodus motif: *Song of the Sea*. Showing rhythmic variations on the motive.**



disquisitions of the viola (see discussion below). It also serves to ground the action and 'cleanse the palette'. Such repetitions, again, do not occur without embellishment in Jewish cantillation, however: vocal tremolos and 'crushed' notes are added to energise

the line. Here, rhythmic alterations to the motive itself, together with embellishments in the left hand, touch upon this expressive practice.

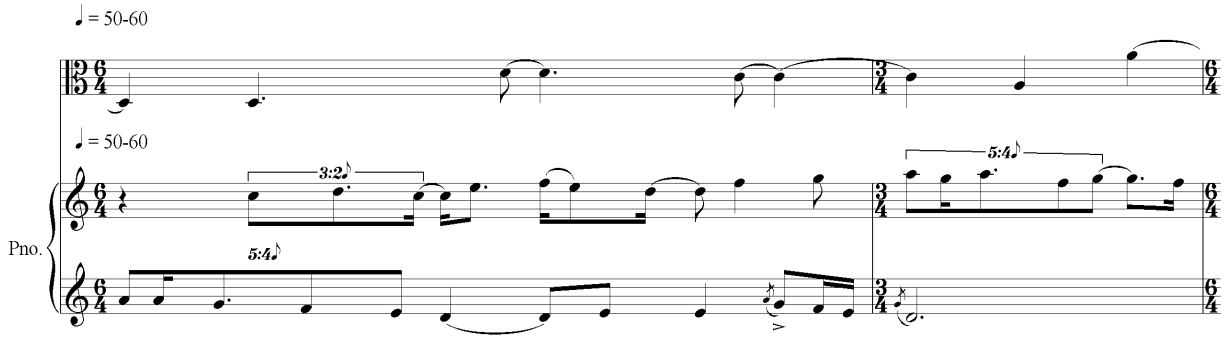
A wide range of motives is used across the Biblical settings; they differ considerably in character and length. Unlike the passive, repetitive quality of the previous one, for example, the following motive, found in *Genesis*, 48: 15–16 (1997, p. 62), is altogether more mellifluous and contoured in style (Ex. 5.3).

Example 5. 3.
Genesis motive: Portuguese (Sephardic) Abraham Idelsohn, p. 40.

[Image removed]

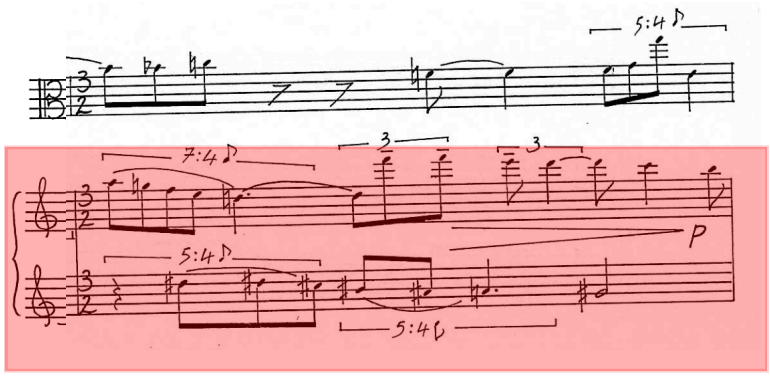
This is incorporated into the piano part in a quite different way to the previous example. Here, in the left hand, it is approached as a contrapuntal line, set against a second motive in the right. Both, again, are altered rhythmically from the source in an attempt to emphasise the independent character of each (Ex. 5.4).

Example 5. 4.
Ariach all Gabbe Levena. **Piano (bottom, page 5). Genesis motive, left hand: contrapuntal treatment.**



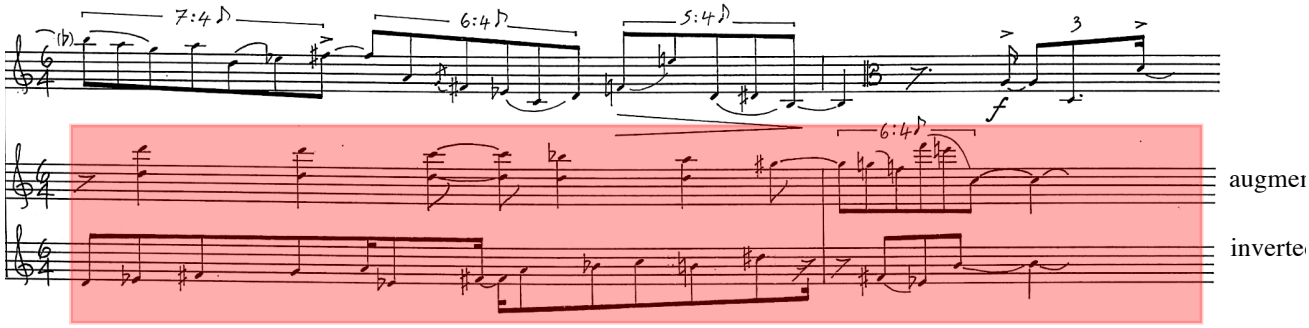
The motives are used quite flexibly throughout. They fulfil a variety of musical functions in different contexts. Presented in overlapping, stretto figurations, they contribute to the build-up of texture (Ex. 5.5).

Example 5. 5.
Ariach all Gabbe Levena. **Piano, page 6 (two before cue mark 3). Genesis motive: stretto, both hands.**



And, in another context, descending in augmentation in the right hand, against an ascending inversion in the left (Ex. 5.6)

Example 5. 6.
Ariach all Gabbe Levena. **Piano (bottom, page 6): Genesis motive: augmented and inverted forms.**

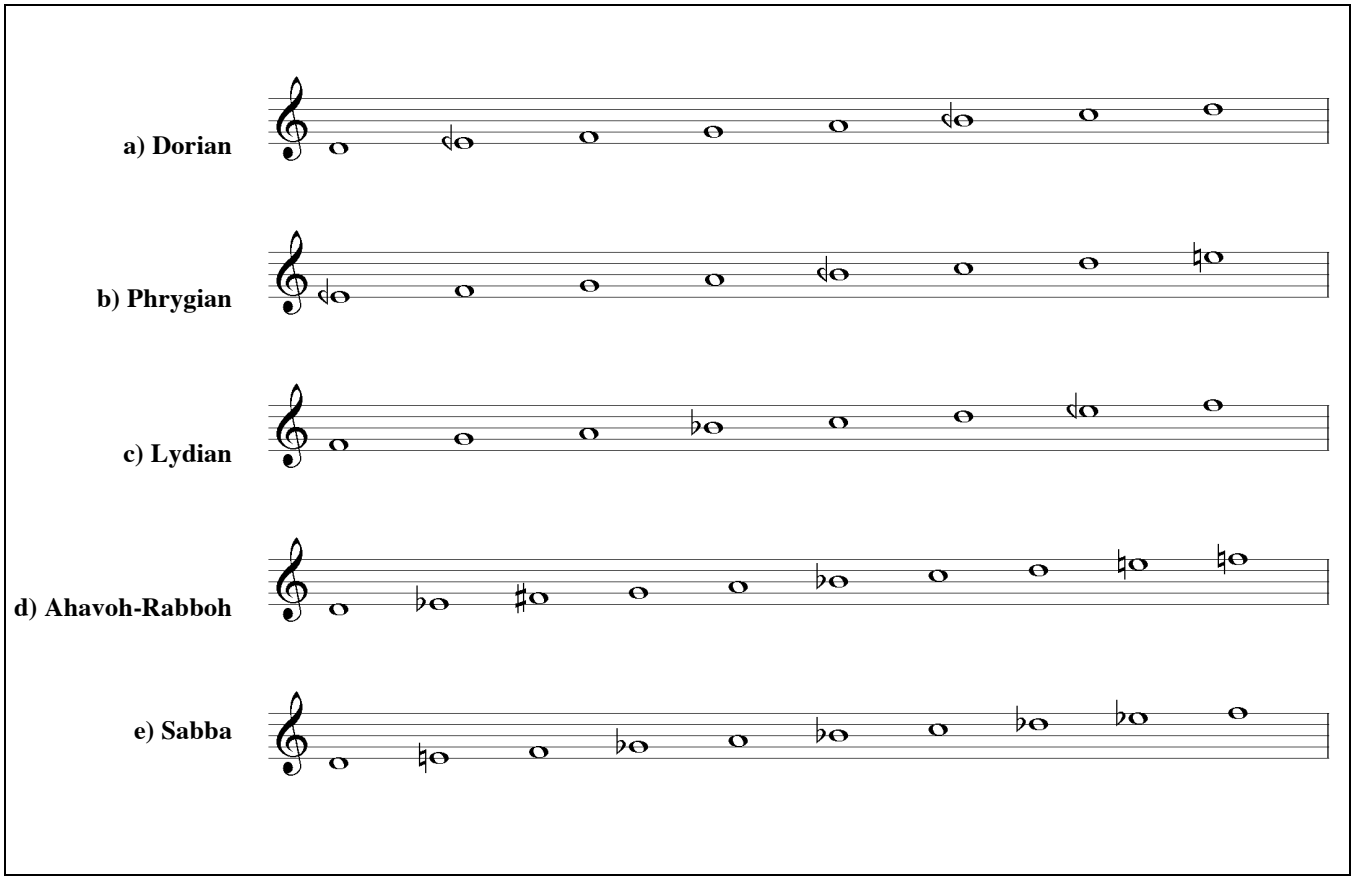


The motives in the piano are simply stated; they are treated in a similar fashion to the melodicles used in cantillation, where they are employed in relatively unchanging form. However, as can be seen, they are also recombined from time to time into evermore varied arrangements, as 'a gardener arranges flowers' (to borrow Hugo Cole's metaphor (1974, p. 37)). This exemplifies a few of the processes by which the motivic material is incorporated into the piano part. The viola music has its own set of concerns. This, to reiterate, is constructed on the basis of: (i) the use of pitch structures from the scales; (ii) assemblage of newly composed motives; and (iii) ametrical monody, and these will be considered next.

Constructing the Viola Music: Principles of Scales, Modes and Motives

The traditional motives are based on the pitch structures of a series of scales (of which there are sixteen in all). A selection of these is reserved exclusively for the cantillation of Biblical texts (the Biblical Modes), whereas others are retained for prayers (the Prayer Modes). Four of the most ancient scales include microtonal versions of three that are known to Western music: the Dorian, Phrygian, and Lydian (Ex. 5.7 (a–c). But there are two that are unique to Jewish music: the *Ahavoh-Rabboh* (Ex. 5.7 (d)) and a combinatorial scale called the *Sabba* (Ex. 5. 9 (e)), which is a mixture of the Dorian and the *Ahavoh-Rabboh*.

Example 5. 7 (a–e) Five Semitic-Oriental scales on which 'practically all Jewish song is based'.



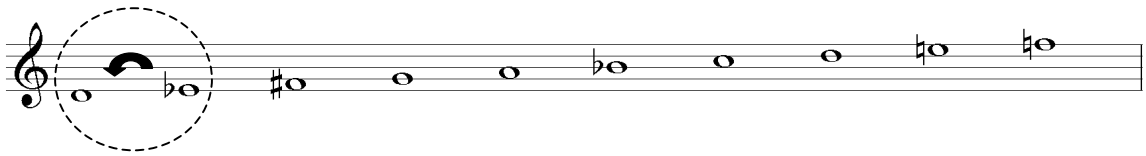
A distinction is made between modes and scales. Scales are understood in the Western sense, whereas modes are a combination of pre-existing motives and cadential formulae, built on pitch material derived from the scales (Werner, 1961). Each motive is

assembled (not unlike medieval plainchant) to a formula, from a collection of shorter fragments. Specific melodic units (melodicles) form the opening and concluding segments of melodic chains, but they also possess both conjunctive and disjunctive functions.

Creating New Motives

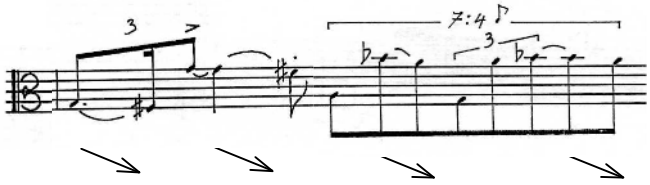
Some of these characteristics have been held in mind when constructing the viola motives. Before starting, however, a further analysis was made of the scales themselves, to try and isolate their most interesting and characteristic features; this aided the process of establishing a particular set of attributes for the material. One of the most striking traits of the *Ahavoh-Rabboh* is the flattened, second degree. This produces a downward-pressing 'leading note' (Ex. 5.8), which creates a strong sense of 'gravitational' pull on the music. The melodic lines are continually grounded, rather than elevated, towards their tonic.

Example 5. 8.
***Ahavoh-Rabboh*: The 'leading note' falls to the 'tonic'.**



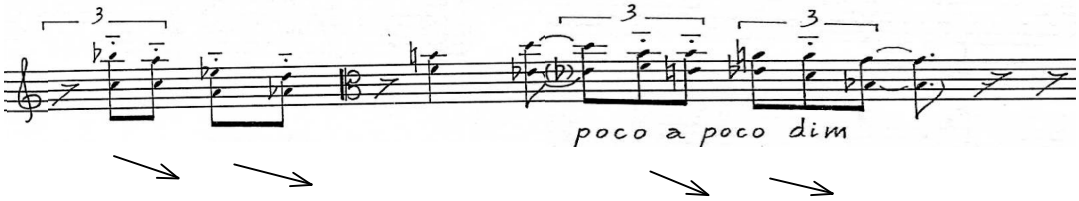
This expressive feature is referenced extensively in the viola part, but it is particularly evident in the early sections of the piece, in a variety of falling motives. These include: (i) 'Sighing' motives (Ex. 5. 9):

Example 5. 9.
***Ariach all Gabbe Levena.* Viola (Pg. 1): Simple downward, 'sighing' motives.**



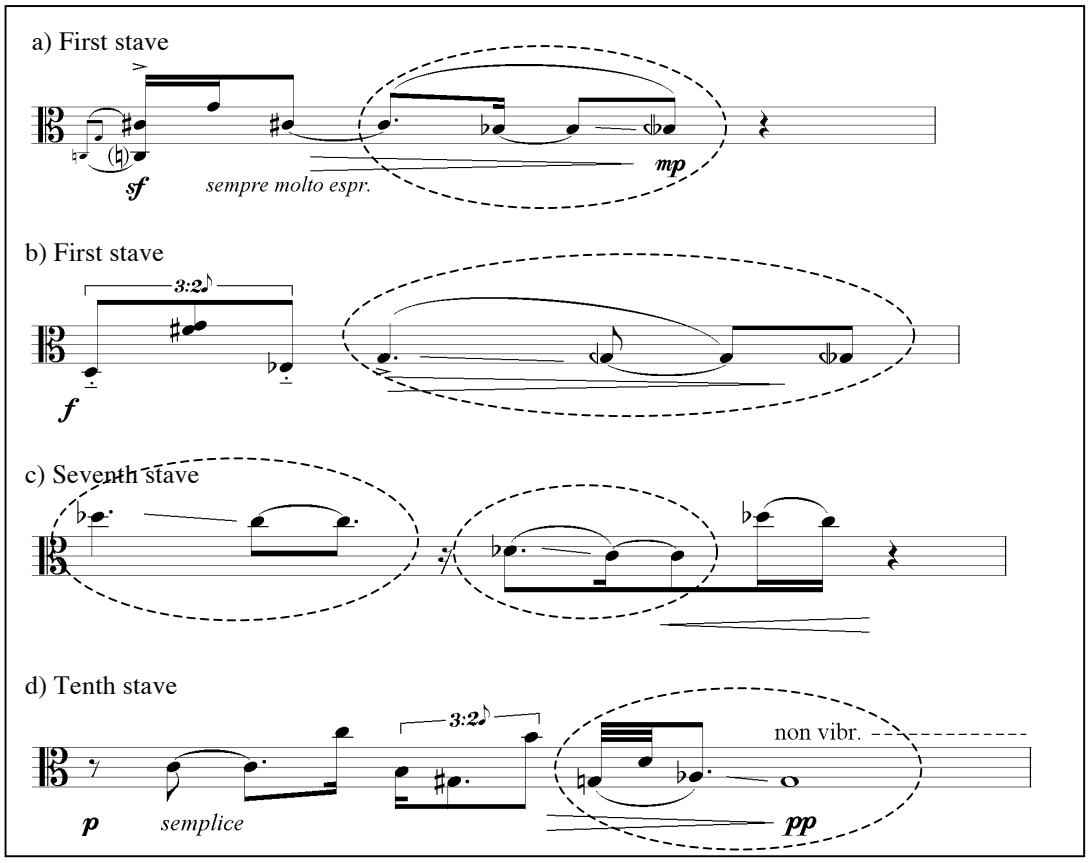
(ii) Descending, dyadic motives (Ex. 5. 10)

Example 5. 10.
Ariach all Gabbe Levena. **Viola (Pg. 1): descending dyadic motives.**



(iii) 'Keening' motives: some extended into microtonal slides (Ex. 5.11, a–d)

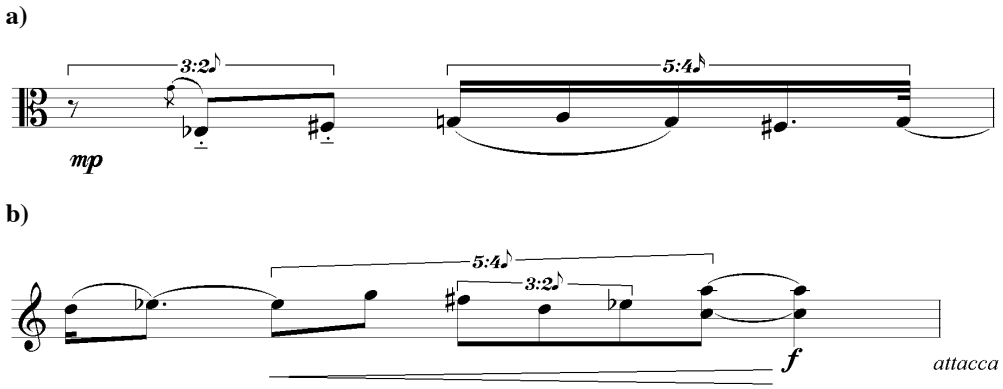
Example 5. 11.
Ariach all Gabbe Levena. **Viola (Pg. 1): Four 'keening' motives, taken from the opening section.**



A number of other classes of motive have also been devised:

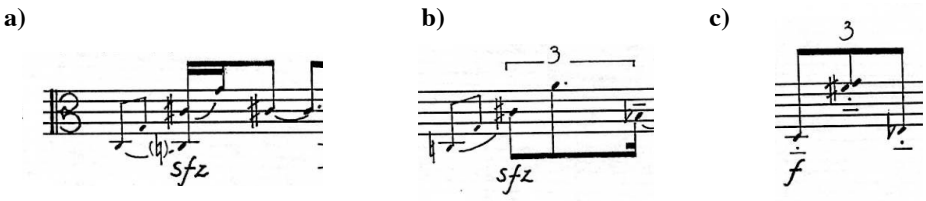
iv) Turning motives: often extended, augmented or chromatically altered (Exx. 5.12 a-b)

Example 5. 12 a–b
***Ariach all Gabbe Levena*: Viola (Pg. 1): Turn-like motive a. — inverted and augmented in b.**



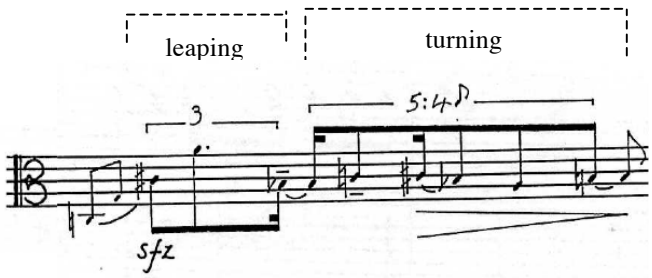
v) 'Leaping-and-returning' motives: on a variety of intervals. (Exx. 5.13 a–c).

Example 5.13 a–c
***Ariach all Gabbe Levena*: Viola (Pg. 1). Leaping/returning motive in three different iterations.**



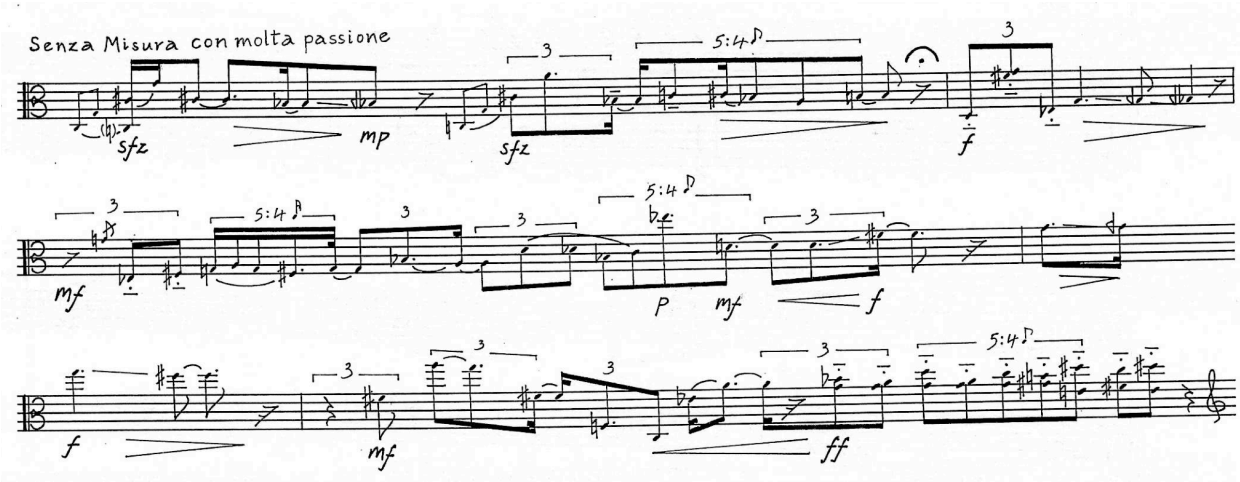
All of these classes of motive (and more) are used as basic building blocks for constructing the viola part; they are strung together to form longer melodic phrases. An example of this motive-building practice is given in example 5.14. Here, the leaping/returning and turning motives are assembled into a combined unit.

Example 5.14
***Ariach all Gabbe Levena*: Viola (Pg. 1). Leaping and turning motives combined into a melodic chain.**



The opening passage of the work clearly demonstrates how the melodic line is made up of an extended chain of many different motives (Ex. 5.15).

Example 5.15
***Ariach all Gabbe Levena*: Viola: Opening passage (Pg. 1) constructed from chains of individual motives.**

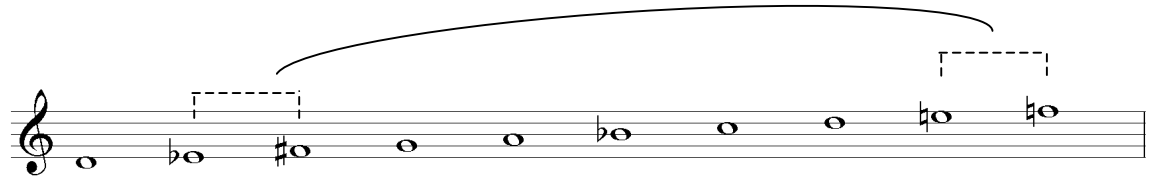


The flattened supertonic of the *Ahavoh-Rabboh* also creates a distinctive augmented 2nd against the mediant. Referred to as the interval of 'abounding love' (Kumer, 2007, p. 66), it possesses an evocative quality that is difficult to resist. Its familiarity and use in much Klezmer music testifies to this. However, it has become a characteristic feature of that music and so is problematic. In order to avoid a clichéd use of this, octave displacements are inserted, which, whilst evoking the flavour of the sound, also help to disguise it, to some extent (Ex. 5.16).

Example 5. 16.
***Ariach all Gabbe Levena.* Viola (Pg. 1, End of stave eight.): Interval of the augmented 2nd 'disguised' by octave displacement**

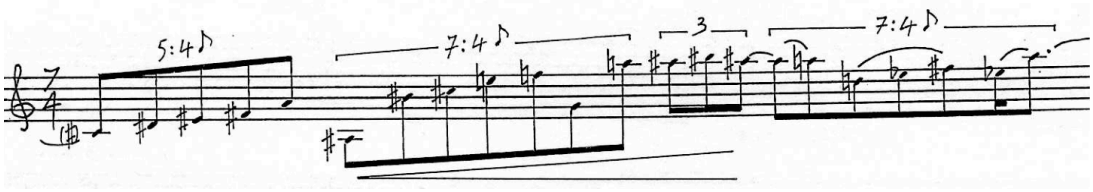
Surprisingly, in the second pentachord of this scale, the ninth and tenth degrees are chromatically altered, which erases this interval (Ex. 5.17).

Example 5. 17.
***Ahavoh-Rabboh* Mode. Showing the chromatically altered ninth and tenth degrees of the scale.**



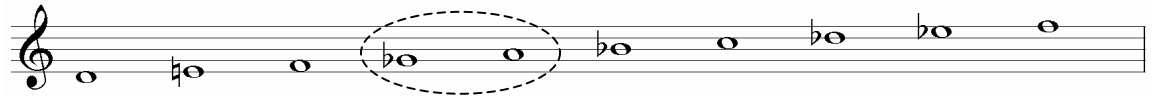
This produces a sense of elevation as the scale clambers up into 'free space'. Something like this expressive element is brought into play in the later sections of the composition in a number of rising viola lines (Ex. 5.18).

Example 5.18.
***Ariach all Gabbe Levena.* Viola: (Pg. 6, following rehearsal mark 3). Emphasising the sense of the ascending line.**



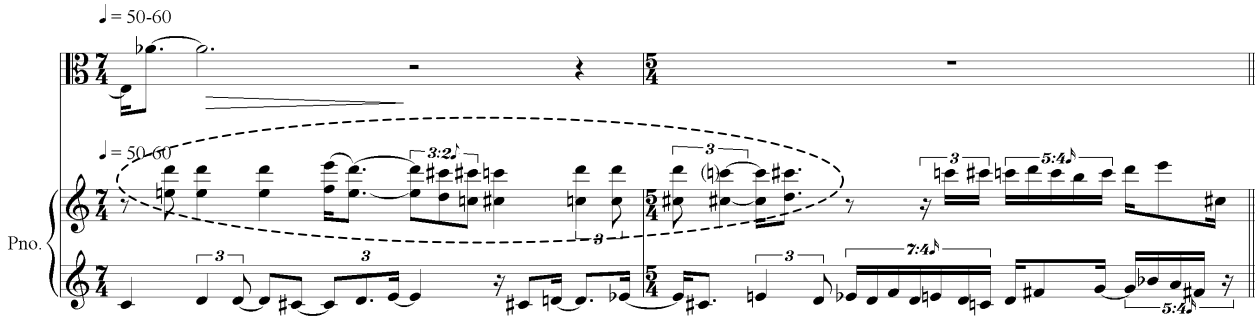
The *Sabba* scale is combinatorial. Interestingly, the interval of the tonic octave is missing as the eighth degree is flattened, so no leading-note is evident in either direction. Although the augmented 2nd is, again, present, in this instance it occurs towards the centre of the scale. Effectively, this creates a separation between the two pentachords. *Sabba* is imbued with an altogether more open sound; there is little sense of finality as it expands upwards largely in whole-tone steps (Ex. 5.19).

Example 5.19.
The *Sabba* Scale. Showing the augmented 2nd towards the centre of the scale, between the fourth and fifth degrees.



Both augmented and diminished octaves are represented in the piano, heard most clearly, perhaps, in some of the right-hand embellishments around the motive (Ex. 5.20).

Example 5. 20.
Ariach all Gabbe Levena. **Piano (Pg. 3, lines 2 and 3). Diminished and augmented octaves in the right hand, embellish the motive in the left.**



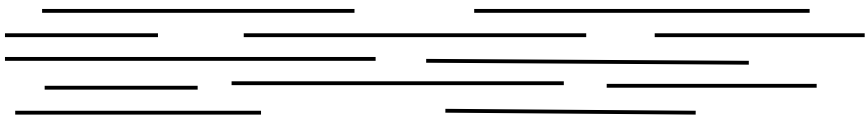
As Idelsohn tells us, there is no concept of harmony in Hebrew cantillation: the ornamented line is the principal expressive feature. On occasion, parallel singing is heard — resembling medieval organum duplum — but this is uncalculated: an unplanned consequence of the singer's attempts to accommodate their most comfortable tessitura. Nevertheless, both elements have also found their way into the piece. As can be seen in some of the previous examples (Ex. 5. 3) ornamental figurations around the motives are incorporated into the piano: (i) in organum-like patterns in the left hand and (ii) by occasional *acciaccatura* additions to the melodic material, etc. Although there are several passages of double stopping, the viola part is largely in the style of a free-roaming, monodic cantillation. Until the very end of the piece the piano is largely restricted to the middle range of the keyboard, in order to allow the viola to circle, unencumbered, in and around the tessituras above and below.

The Responsorial Principle and Structural Chains

The structure of *Ariach all Gabbe Levena* is articulated not only through the binaries of the material but also in the way it is arranged and juxtaposed. This, itself, is tied to the notion of responsorial singing, which was an important feature of Hebrew temple music practice. There were several varieties of response, ranging from simple refrain settings, to full, independent responses of disparate material. In this piece, the viola contributes a

rather diasporic elaboration; the piano responds with a more rooted, studied articulation of ideas, with modal material of an almost naïve quality. The structure of the work reflects this alterity between the instruments. The principle of assemblage at the level of motivic construction is extended, conceptually, into the large-scale formal plan. Like the assemblages of material, then, the overall structure comprises a collection of units, strung together in alternately long and short sections. This can be thought of as a series of links in a chain, where the shorter fuse together the longer. One conceptual influence for this chain-like structure has been Lutosławski. In the preface to the published score for *Chain 2* he remarks on '…a new type of musical form, which consists of two structurally independent strands. Sections within each strand begin and end at different times' (Lutosławski, 1985; Rae, 1999, p. 200). The title of the piece — *Ariach all Gabbe Levena* — is, itself, a colourful reference to this structural phenomenon. Idelsohn (1967, p. 50) translates it as 'a log upon a brick', which reflects the printed layout of the poetical section of the verses of the *Pentateuch* as they appear in the Talmud. The juxtaposition of long and short structures resembles the design of a wall (Fig. 5.2).

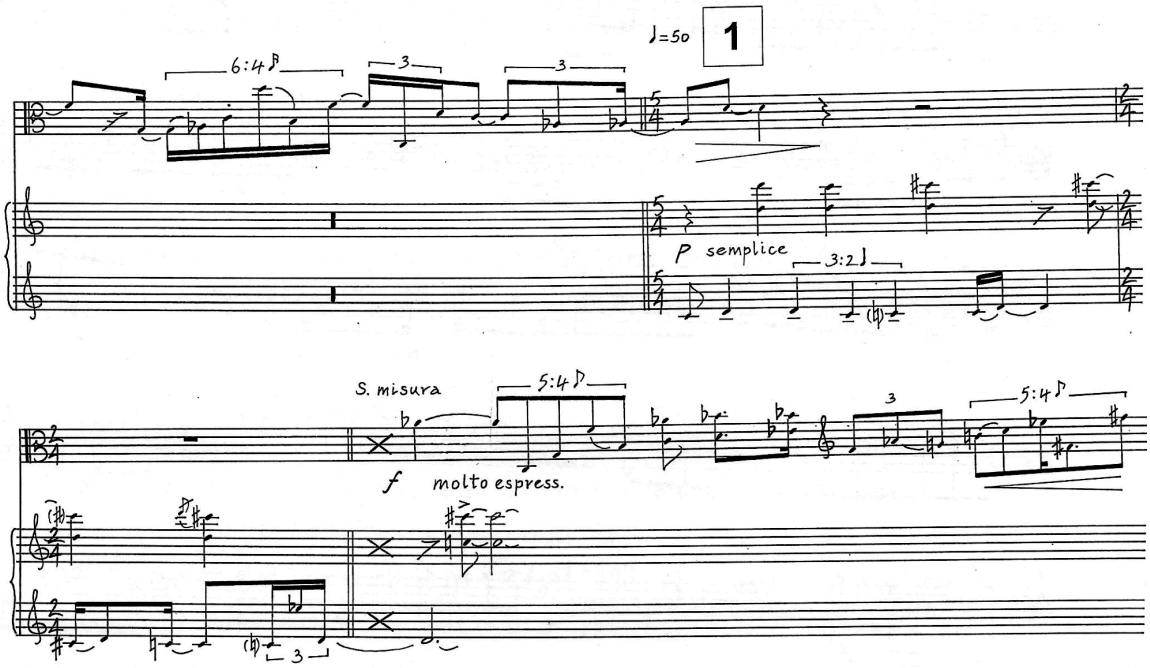
Figure 5.2.
***Ariach all Gabbe Levena*: 'A log upon a brick'. Abstract representation of the printed layout of the poetical sections of the verses of the *Pentateuch,* as they appear in the *Talmud*.**



The non-poetical sections of the verse are structured around a series of short blocks, in what might be described as 'a brick upon a brick'. This arrangement has obvious possibilities for compositional structure, and, although not used literally or systematically, its conceptual design forms the background to the overall layout. Such

'linked chains' are evident throughout the score. On page two, for instance, a piano 'chain' is briefly inserted between two sections of viola music (Ex. 5.21)

Example 5. 21.
***Ariach all Gabbe Levena*: (Pg. 2, cue mark 1). One example of a chain link between the two parts.**



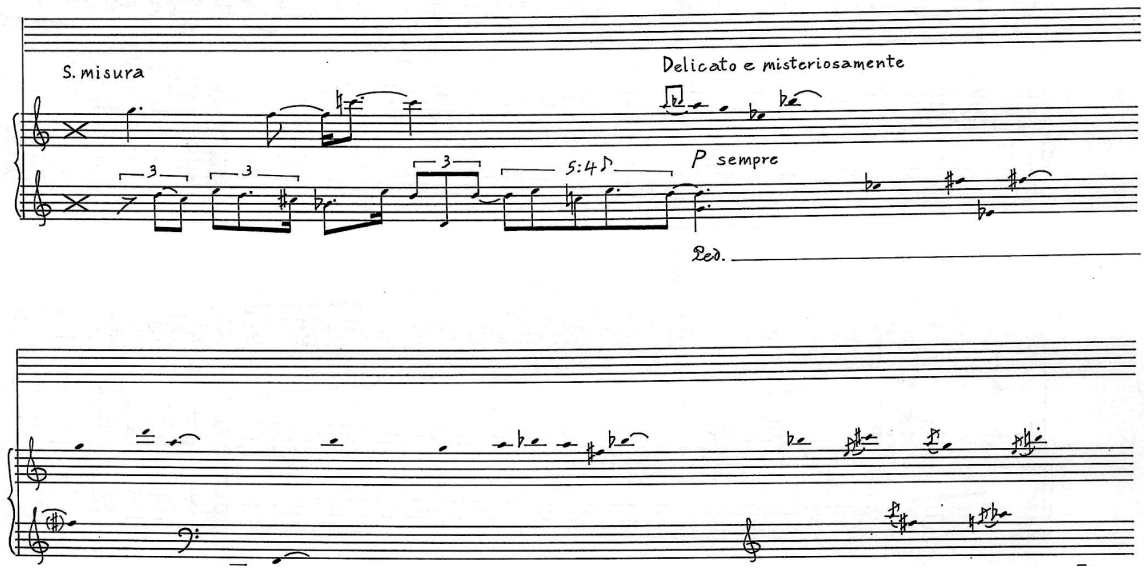
This structural pattern suggests possibilities for other kinds of opposition in the music: where the binaries of 'shortness' on the one hand, and 'long-ness' on the other, could easily be used to create other sorts of dialectic (Fig. 5.3).

Figure 5.3.
Some possible musical oppositions suggested by the concepts: Short – Long.

SHORT	**LONG**
Condensed material	Replete material
Curt and incomplete	Expansive
Interruption	Continuation
Simplicity	Elaboration
Terseness	Refulgence
Lean-ness	Extensiveness
Undeveloped ideas	Density of texture
Terminal endings	Discursive exposition

This composition, then, attempts an exploration of a sound world that conjures with illusions of incantation and the dialectic between expressive outpourings and restraint. In spirit it embodies a polarity that might be seen to spring from two competing approaches to scriptural exegesis: Midrash and Charity (Armstrong, 2007, pp. 79-125). The former posits an intellectual form of interpretation, based largely on complex networks of meaning and sub-meaning in the text. Such hermeneutical speculations are replete with hidden, allegorical significance. The latter, however, follows the Augustinian missive, by which the virtues of simplicity, charity and faith are extolled. An attempt is also made throughout to re-examine and explore the sound of the viola, to take a fresh look at its tonal possibilities with an expansive and 'fluid' mode of execution of the material. This approach involves the inculcation of microtonal inflections, hovering about and ornamenting the more defined pitches of the melodic line. Some rhythmic leeway is also necessary to allow the performer to explore the full, expressive potential of the material. To achieve this, a more open approach to notation becomes necessary. At the end, use is made of proportional notation. Here, the pitches

Example 5. 22.
***Ariach all Gabbe Levena*: Piano. A final 'farewell' to the performer. The work 'dissolves' into an 'open door'.**



and phrase structures remain determinate, but the degree of exactitude in the rhythmic values and the rate of unfolding of the material are left to the performer's discretion.

Pete Gumbley sadly died before the composition was completed, and I have included it in this portfolio not only as a record of the research undertaken but also in his memory. The final stages of the composition offer a valedictory homage to him (Ex. 5.22), leaving — to invoke Ondaatje's image once more — an 'open door you can't see too far out of' (2004, p. 91).

Chapter Six
A Rehearsal for Extinct Polyphonies

This composition explores the nature of musical diversity, using structures and techniques that predate the advent of Western tonality. It investigates the pluralities inherent in polyphonic thought, not simply through the prism of its own historical context or through its function as a textural device (although it draws on these aspect too), but primarily through the perspective of co-presence and disparate discourses. It tests the hypothesis that individual ideas and trajectories can, indeed, come together, or at least move — albeit, not without some degree of friction — in a shared or negotiated direction. Pre-*Seconda Prattica* music is organised without recourse to 'musical individuals' — identifiable gestural *Gestalts* — where development and change are absent. It perspectivises this in the context of a variety of non-goal oriented and static ambits. The materials are drawn, in part, from the polyphonic and polytextual motets of the *Ars Antiqua* in the twelfth and thirteenth centuries (see below) (Hoppin, 1978, pp. 328-330). It therefore engages with and expands on the intertextual theme of the thesis. The work is scored for a mixed ensemble, comprising a string trio and woodwind quartet.

A Rehearsal for Extinct Polyphonies (*REP*) also explores various aspects of time: not only musical time in relation to tempo, pulse and rhythm, but also psychological time — *chronos*, or duration, as perceived, experienced or sensed: elapsed time. Various aspects of the static qualities of time are also explored together with time-ing: experimenting with the variable rate at which material may be introduced into a musical narrative. In an article written in 1961 — *A view from Delft* — Cone (1961, pp. 439-453) makes some interesting observations with respect to this. The tension that

exists between the detail and the structure of a work has engendered many and varied compositional solutions. Unlike painting which, he claims, is fixed, music can more readily play with time, gradually unfolding the detail as it proceeds. The introduction of each new feature in a piece gives occasion for suspense and questioning: how will it relate to its context and how will the context correlate with the whole?

The title of this piece — adapted, paratextually, from the Quay Brothers' puppet animation: *Rehearsals for Extinct Anatomies* (1987) — seeks to reflect some of these ideas. It also encapsulates several additional notions that I was keen to explore. The notion of the rehearsal, for example, is a commonplace in the performing arts. Banal though this may seem, as an idea it has some interesting connotations. The 'rehearsal' frame of mind is loaded with hierarchical modes of thinking, which, through such concepts as preparation (or primping), are highly suggestive of a kind of utopianism: belief (or hope) in a future state in which more exacting or worthy events will emerge out of the (imperfect) preparatory present. But rehearsals, it could be argued, are themselves a kind of performance, and, as the research of Bayley and Clarke (2011) has shown, in attempting to access the intentions of the composer through the preliminary testing of a work, many interesting and valuable musical interactions (and, indeed, performances) take place between performers and composers out of the earshot of a listening public. By the same token, public performances of a work could well be considered rehearsals, each one becoming a test for subsequent iterations. All of which adds up to a performance history and culture in the life of a given work. This notion contains yet another charge: a compositional narrative is a representation of a musical argument and a statement of the ideas that it confines and contains. Playing a

composition in any context constitutes a rehearsal of that discourse — a test of its arguments in practice.

The notion of extinction also lies at the heart of the temporal, performing arts. This has a peculiar significance for music because there is something inherently metaphysical about it. The profoundest conundrum of musical ontology lies in its deconcretised, elemental nature. Sound is perpetually on the edge of its own extinction; it has a vital presence, yet is devoid of physical form, and the moment it comes into being it instantly passes away, leaving in its wake…what? This inherent 'extinct-ness' of being lends music its intense and unique affective urgency; it is potent and powerful, because it is without stability of 'form'. In the context of aesthetic and technical procedure, extinction also fulfils a (sort of) evolutionary role. Many of the underpinning components of medieval discourse are now extinct, and, as such, appear rather alien from a post-enlightenment perspective. Most at odds with today's thinking, perhaps, are the notions of universality and stasis. Those engaged in establishing the underlying principles of music during the Middle Ages took their understanding from the ancient Greeks, who believed it to possess a significance and meaning beyond itself. In Boëthian terms, music was understood to be an instantiation of Pythagorean universal principles — the harmony of the spheres made audible — which represented, through the concept of *musica mundana*, an embodiment of the unity of creation (Field, 2006, pp. 29-44; James, 1995, pp. 3-19). Principles of integration, therefore, are central to this music: not on the *musica instrumentalis* (or performance) plane but as an expression of immutable cosmic law. For this reason, the distant musical past, well trodden though it may have become in historical performance practice, remains conceptually foreign for composition. This metaphysical immutability is, nevertheless, expressed practically in the idea of musical stasis, and is most clearly evident, perhaps, in the medieval mistrust

of change and pursuit of new knowledge. It is partly in consequence of this that composers were little concerned with the creation of new material, embracing, instead, the principle of centonisation (Hoppin, 1978, p. 69): an inherited common body of melodic plainchant figures, which, acknowledged as a God-given resource, was deemed perfect and inviolable. As such, this shared fund of materials was routinely paraphrased in a sort of perpetual recapitulation (Berger, 2005). La Monte Young (Nyman, 1999, p. 140) expresses this situation succinctly:

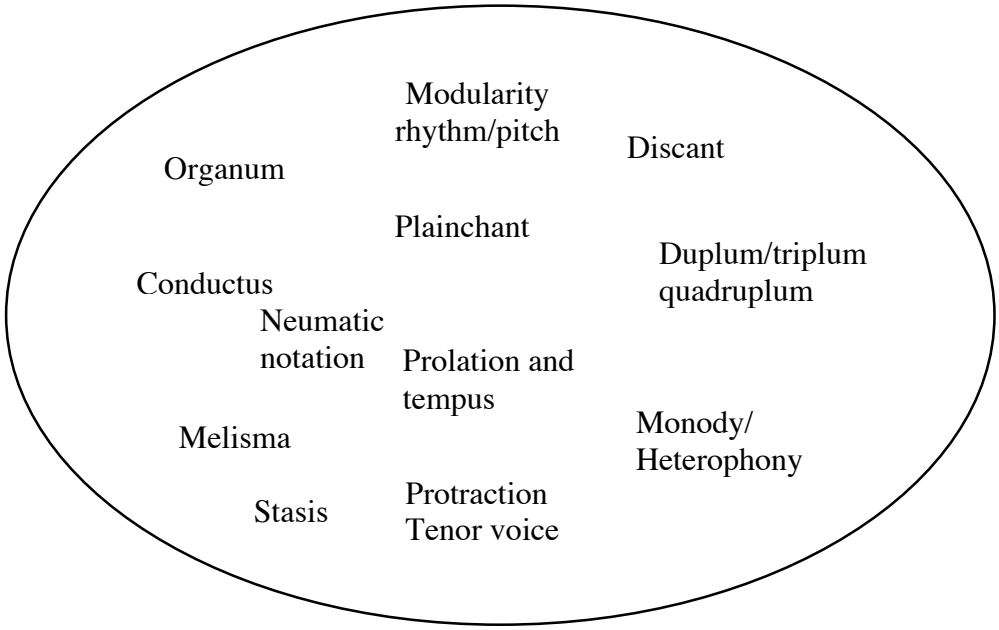
> Climax and directionality have been among the most important guiding factors, whereas music from before that time, from the chants, through organum and Machaut, used stasis as a point of structure a little bit more the way Eastern musical systems have.

Recognising the historical past is important to our understanding of what we do and how we think today. Acknowledging music's past is to respect its impact, and to reflect on what, by extinction, has been lost.

Polyphonic music can, in essence, be regarded as a form of troping: a gloss, or commentary, upon given sources if material, and a corollary to the textual additions found in the liturgy. But it also sets up a duality between the perfect, immutable, recapitulative essence of the material on the one hand and the urge to make creative additions to it on the other. An interesting tension arises out of this creative impulse, embodied in early polyphonic writing. One such implication might involve notions about individual freedom and its containment, exploring diversity in movement that, nevertheless, remains captured, framed or managed by the idea of an underpinning and inviolable (and inexorable) principal voice. This composition, then, considers the implications of all of these ideas, testing a diversity of musical discourses on a given set of materials, which, operating independently, at the moment they come into being rapidly pass away. It reflects a living process.

As a preliminary step, a selection of compositional features found in medieval polyphonic settings have been isolated and placed together into an initial problem space (Fig. 6.1).

Figure 6. 1. ***A Rehearsal for Extinct Polyphonies*****. Initial components in the compositional 'problem space'.**



Unpacking relevant elements from a restricted fund of ideas is one of the most fascinating stages of a nascent composition. Here, notions of protraction and elaboration suggest an interesting binary: a parallel magnification and contraction of material, analogous, perhaps, to focusing a lens on a subject in both extreme close-up and wide angle simultaneously. The relationship between duplum, triplum and quadruplum also presents scope for contrasting dualities and pluralities of discourse, delineating structures through textural contrast among other things. Similarly, the extrusion of heterophonic possibilities from monodic unison is suggestive as a way of exploring a single melodic line. Also interesting is the potential inherent in the principle of neumatic notation, and the possibilities it holds for presenting material in a less familiar, more ambiguous type of script.

The technical components from this group are not employed overtly nor presented in chronological progression (this composition is not intended as an essay in, or display of, medieval polyphonic writing skills). Rather, they have been allowed to merge into an amalgam of compositional gestures. They come together throughout the piece in a confluence of ideas and events. The opening section, for example, takes for its point of departure the notion of heterophony as an early form of polyphonic trope, while the final pages of the score make reference to early notational practice. It becomes a free association of ideas, out of time and out of place. The relationships between the various technical devices that have been used remain suggestive, creatively open and free. The question being asked is: how is it possible to create a larger structural whole from a series of contrasting, and sometimes divergent, principles?

The material for this piece is derived from two sources. The first is the plainchant melody for the *Alleluia Pascha nostrum* (Liber Usualis, 1956, p. 779); the second, an anonymous three-part conductus tune (Exx. 6.1 and 6.2).

Example 6. 1. Plainchant: *Alleluia Pascha nostrum*. LU pg. 779.

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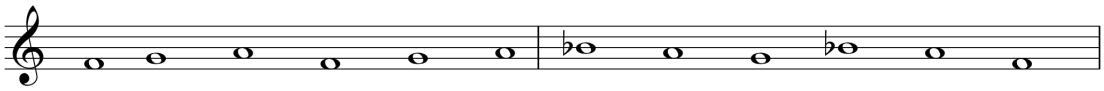
Example 6.2. Conductus melody, pitch structure (anon.)



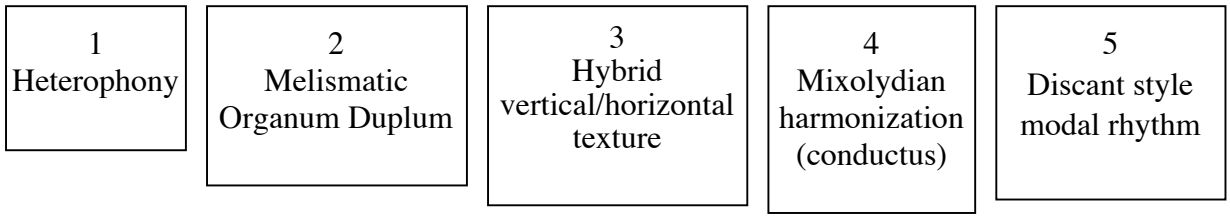
This melodic material is used as the basis for the elaboration and creation, in part, of the work's underlying structures. *REP* is formulated sectionally in a series of textural variations and contrasts. Again, it takes as its model the *Notre Dame* mass setting based on the *Alleluia Pascha nostrum* (Palisca, 1996, pp. 53-60). In the *Norton Anthology of Western Music* one performance possibility is outlined to demonstrate how a variety of polyphonic forms may have been used as a device to expand and delineate structure: 'presented as they could have been performed in the thirteenth century, when more elaborate settings of certain sections replaced simple organum…' (Palisca, 1996, p. 53). The sequence of techniques runs as follows: (i) plainchant; (ii) Organum duplum; (iii) Motet and clausula; (iv) plainchant; (v) Motet and clausula; (vi) Discant in modal rhythm; (vii) Motet in triplum in modal rhythm.

Formal Structure

Although this precise sequence is not exactly duplicated in *REP* something of its kind is adopted. A brief description of this structure is given here, followed by a more detailed treatment of each part below. *REP* is in five sections. It begins with a heterophonic trio for strings, which possesses an arch-like structure delineated texturally. The busy opening reduces to a single cello line, expanding again to include woodwind entries in its final third. The second section, beginning at cue mark 8, has a two-part structure. Initially a tract for oboe and viola, it makes reference to the melismatic, organum duplum style, before opening up to share its melodic content with spasmodic entries from the rest of the ensemble. Section three (beginning at cue mark 14) deviates

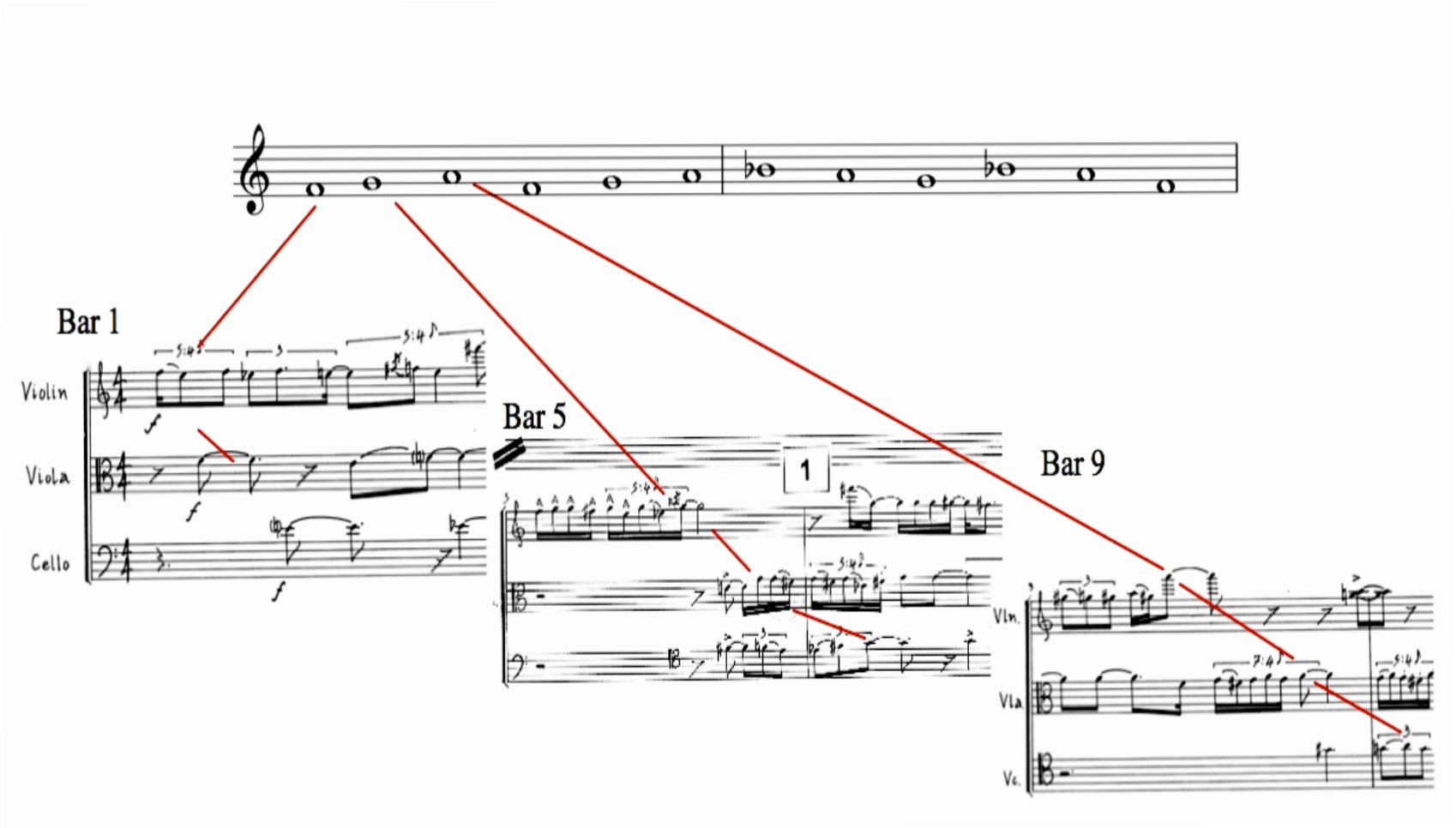
from the polyphonic style of the first two, exploring a mixolydian-based conductus melody in a four-part woodwind harmonization. (This line, incidentally, is reused as basic material for the song setting *Each Through His Own Eyes,* discussed later.) This section also has a two-part structure, the second beginning at cue mark 19 and ending abruptly at 22. The fourth section sees the return of the string trio. It recombines and remixes all of the material presented thus far into a new, hybrid texture, consisting of both vertical and horizontal elements, before arriving at the fifth and final section, starting at cue mark 29. This last section makes specific reference to the modal rhythms of Notre Dame in discantus (Fig. 6.2). Each of these sections is discussed in more detail below.

Figure 6. 2.
***A Rehearsal for Extinct Polyphonies*. Five-part structure.**



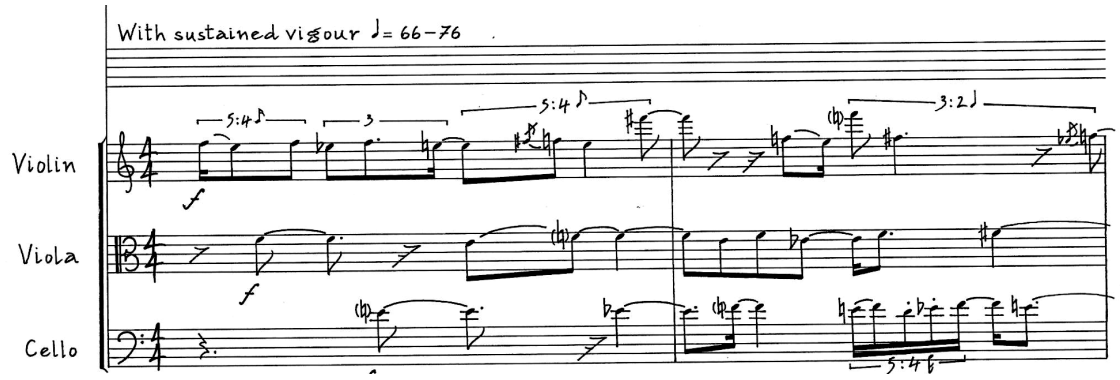
1. The heterophonic opening is brought together with the idea of melisma. The latter provides an ornamental embellishment over the underlying, chant-like tenor structure: a simple four-note, rising pattern on the (medieval) mixolydian mode. This may be detected, with some effort, gradually ascending amidst the musical detail (Ex 6.3).

Example 6. 3.
***A Rehearsal for Extinct Polyphonies*. Rising/falling four-note structure underlying opening heterophonic section**



The musical detail is nothing more than a collection of personalised, ornamental micro-variations, which creates an opaque texture around a 'hidden' melodic foundation. This produces a sense of collective expression by means of individual articulations — i.e. each statement of the line progresses independently, yet cooperatively (ex. 6.4).

Example 6. 4. *A Rehearsal for Extinct Polyphonies*, bb. 1–2. Opening heterophonic texture.



Such practices have been observed and ascribed to 'group singing within orally transmitted monophonic traditions' (Cooke, 1980, pp. 537-538). Effectively, it is a product of the intricate discrepancies that occur in unison monody, and is a feature of performance where 'individual people, who in the singing fellowship reserve the freedom to bear witness to their relation to God on a personal basis' (Ex. 6.5) (Knudsen, 1968, p. 10).

Example 6.5.
Vocal heterophony: '*Martyrdom' Isle of Lewis, Hebrides* (Knudsen, 1968).

[Image removed]

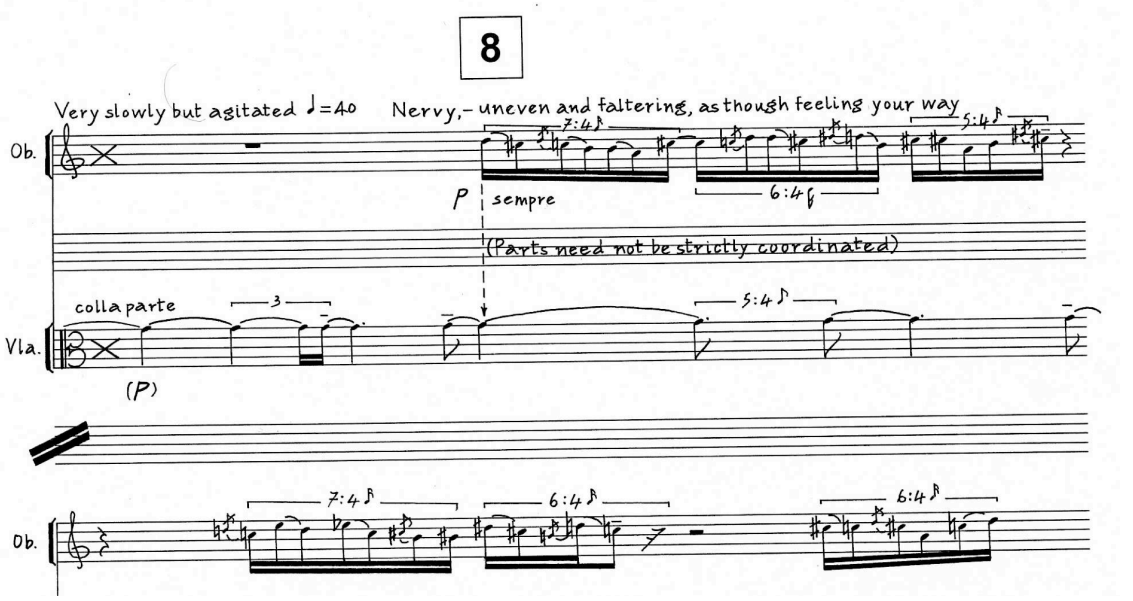
In an article in the *Journal of the American Musicological Society*, Nicholas Temperley (1981, p. 511) states that:

> In places where congregations are left to sing hymns without musical direction for long periods, a characteristic style of singing tends to develop. The tempo becomes extremely slow; the sense of rhythm is weakened; extraneous pitches appear, sometimes coinciding with those of the hymn tune, sometimes inserted between them, the total effect may be dissonant.

The concept of a static melodic principle, from within which diverse voices emerge, also expresses a relationship in which action may be viewed as simultaneously cooperative and divergent.

2. The structure of *REP* is also articulated by variations in instrumental colour, where different ensemble combinations come into play. Precedents for this practice can be found in a number of works: particularly Schoenberg's *Pierrot Lunaire* (1912), Messiaen's *Quatuor Pour le Fin du Temps* (1941) and Boulez's *Le Marteau sans Maître* (1954). In the second section of *REP* the string trio is replaced, initially, by the viola and oboe, which reference a florid organum duplum style (Ex. 6.6).

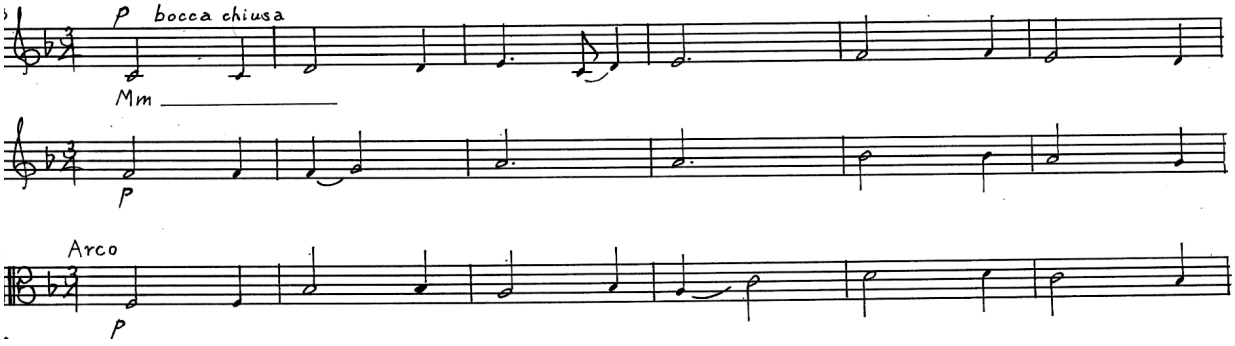
Example 6. 6. *A Rehearsal for Extinct Polyphonies*. Second section, Pg. 7. The oboe and viola reference a florid organum duplum-like texture, based loosely on the *Alleluia Pascha nostrum* chant.



Here, the oboe takes a melismatic trope over the tenor in the viola, itself loosely based on the chant of the *Alleluia Pascha nostrum* (Liber Usualis, 1956, p. 779). Resemblance to the original is, again, primarily textural. The description given by Claude V. Palisca is relevant to both, and worth repeating in this context: 'the plainsong intonation is stretched out into unmeasured long notes of indefinite duration to form the tenor; against this a solo voice sings textless melismatic phrases, broken at irregular intervals by cadences and rests' (1996, p. 61).

3. The section that follows this (cue mark 14) presents a sudden and dramatic contrast on a number of levels. Firstly, it is scored entirely for woodwind, creating a new timbral perspective. It is also conceived harmonically, rather than melodically, based on a transformation, through elaboration, of the conductus material (Ex. 6.7)[16].

Example 6.7.
***A Rehearsal for Extinct Polyphonies*. Opening of the three-part conductus (anon.) upon which the harmonization of Section Three is based.**



It takes a leap forward historically/chronologically by referencing the prolation mass: each instrument carrying its own distinct metre. Ockeghem's *Missa Prolationum* is the model for this, which features the full gamut of perfectum/imperfectum permutations for prolation and tempus (Ex. 6.8).

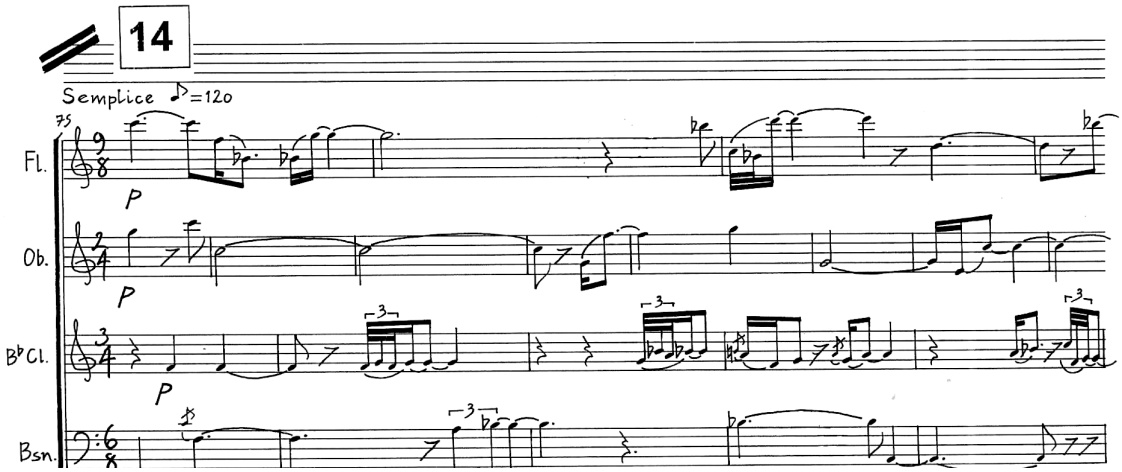
[16] This is the material, referred to earlier, that is used as the basis for '*Each Through His Own Eyes'*(see chapter 9, pg. 163)

Example 6. 8.
Ockeghem *Kyrie II. Misse Prolationum* (Grout and Palisca, 2001, p. 159)

[Image removed]

The corresponding section in *REP* is similarly arrayed with a selection of distinct (perfect/imperfect) metrical units (Ex. 6.9).

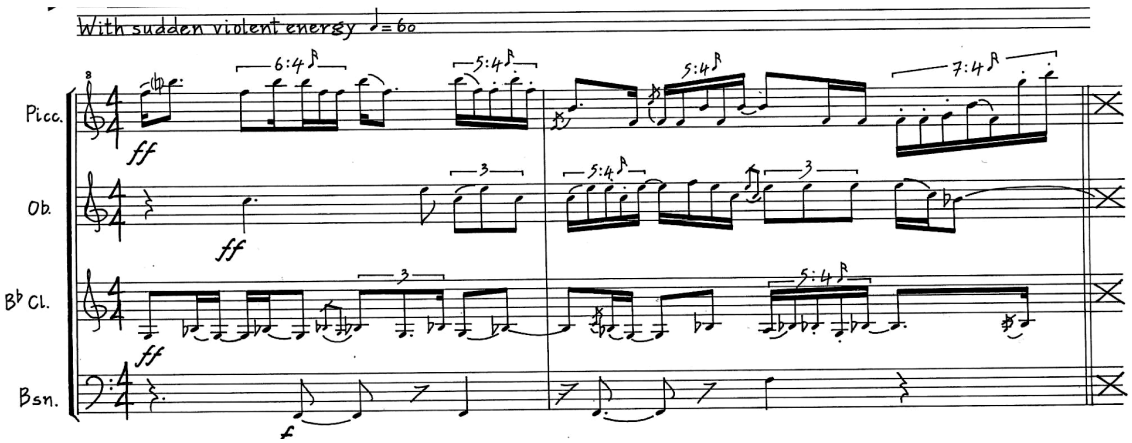
Example 6.9.
***A Rehearsal for Extinct Polyphonies*. Third section, pg. 12. Imitative writing, using the concept of multiple-prolation.**



Although imitative elements are employed, no attempt is made to reproduce the sort of canonical structures evident in the Ockeghem. But, again, as La Monte Young (Nyman, 1999, p. 140) points out, stasis lies at the heart of medieval music, and this is a feature that *is* explored here. The section that follows this foray into multiple 'prolation' (starting at cue mark 17) evokes this element of stasis through a sudden injection of energy around a fixed, harmonic structure. To some extent it is reminiscent of the

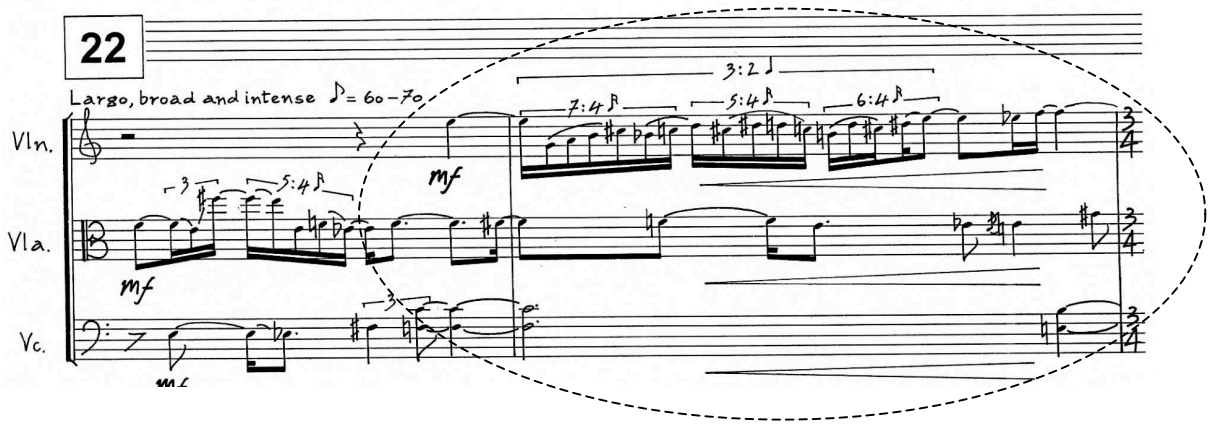
opening of Lutosławski's *Jeux Vénitiens* (1961), or, perhaps, Messiean's *Mode de Valeurs et d'Intensités*, but only figuratively — a binary of frenetic activity contained within a static framework. It is movement without a goal-oriented objective, and could be likened in its effect perhaps, to a still pond disturbed by raindrops (Ex. 6.10).

Example 6.10.
***A Rehearsal for Extinct Polyphonies*. Cue mark 17, pg. 14. A binary of activity and stasis.**

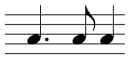


4. Section four takes the material of the previous three, reconfiguring it into a fresh set of responses. The florid figures of the oboe from section two are recontextualised within a more harmonic setting. However, the horizontal conception remains potent, and, indeed, continues to be emphasised as a binary element. The rate at which new material is rolled out is of primary concern here. Distinct layers of time are frequently applied to the material whereby the movement and flow of each line is manifest individually within its own durational parameters. In the following example, the violin, viola and cello can be seen to operate on their own durational planes, each spinning out its material at its own pace (Ex. 6.11).

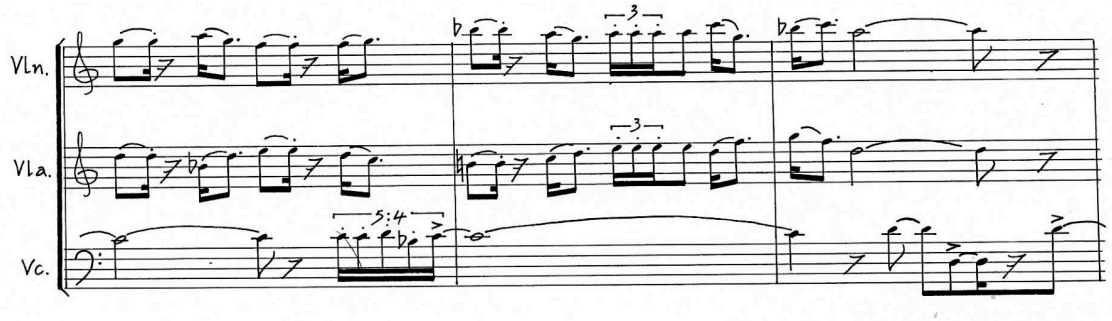
Example 6.11.
***A Rehearsal for Extinct Polyphonies*, Pg. 16. Violin, viola and cello 'roll out' their material at three distinct rates of speed.**



The complexification of rhythmic values into more involved irrational groupings (particularly in the violin) is designed, among other things, to draw attention to this intricate variability of time.

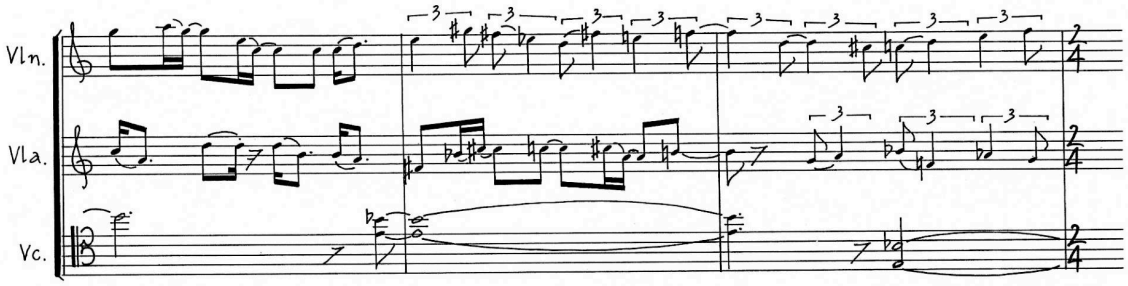
5. The final phase of the composition is constructed on a 'faux' discant, around an (initially) distorted modal rhythm, based on the Dactylic, mode three  (Hoppin, 1978, p. 222). Placing this into a dotted figure in duple time contains the essential idea of this section (Ex. 6.12).

Example 6.12.
***A Rehearsal for Extinct Polyphonies*. Final section, fig. 29, pg. 21. Dactylic mode placed into duple metre.**



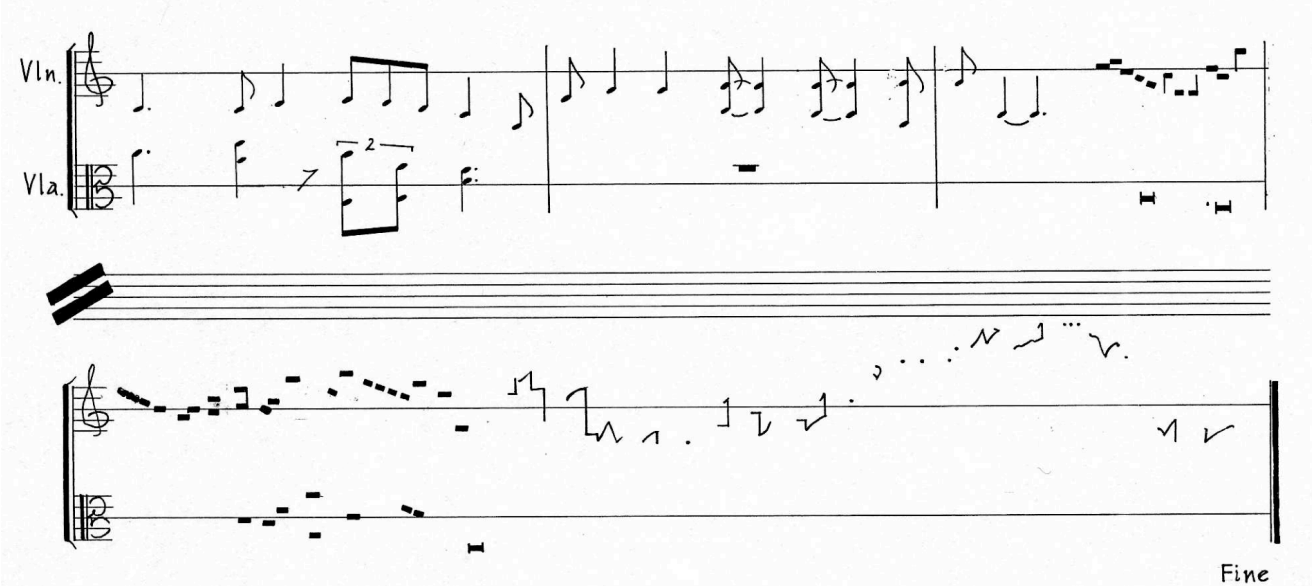
As the music unfolds, the duple count is surreptitiously replaced by its equivalent in compound time. It expresses one of the features of this composition: a search for answers to basic questions: how are compositions made; what are the composer's duties and responsibilities; where does one access the material and what should be done with it? The modal rhythm is eventually 'found' as the violin tips into compound time, seemingly by accident (Ex. 6.13).

Example 6. 13.
***A Rehearsal for Extinct Polyphonies*. Final section, pg. 23, before cue mark 31. Transformation of duple into compound divisions.**



The final sequence of the piece insinuates a return to musical origins, as it were, as reference is made to the earliest notion of neumatic notation. In these final stages the stave is suddenly erased, replaced by a single line of reference. The performers are directed to continue the melodic line without recourse to precise pitch values as the work plays itself out (Ex. 6.14). The repeated dyads in the cello provide a static underlay of a rhythmicised version of an extended tenor.

Example 6.14.
***A Rehearsal for Extinct Polyphonies*. Final sequence, cue mark 35, pg. 26. The piece ends with a final reference to early neumatic notational practice.**



Chapter Seven
Tilting Martha

This composition differs from the others in the portfolio in that it was the product of a commission, written to support a final-year, student dance project at the University of Wolverhampton [17]. As will be seen, therefore, a new set of constraints applies. Although devised for this specific, external project, it is included in the PhD because it also engages with core aspects of the research profile: a transtextual interaction with the vocabulary of dance, investigating flexible approaches to the structuring and organisation of material. It also extends the research from the *Biomechanical Studies* into a live setting for movement, presenting another distinct array of compositional possibilities.

Using the work of Martha Graham as a stylistic model, the dance students' were instructed to explore the relevance of a primitivist aesthetic for current contemporary dance. Two of Graham's works — *Primitive Mysteries* (1931) and *Night Journey* (1947) — were selected as points of reference. The students were required to make a 'forensic' study of these pieces, unpicking some underlying principles and testing them through the context of their own work. For strategic purposes the company of dancers

[17] An internal report on the creation and performance of this work was distributed as follows:

Independent musical composition inspired/derived by Christopher Foster from the Louis Horst composition for Martha Graham's 1931 work *Primitive Mysteries* called *Tilting Martha*. Horst was Graham's musical director and artistic mentor through much of the early 20th century. Foster's work served as the accompaniment for a work created and performed by 3rd year dance students as part of their final creative devising project stimulated by Graham's *Primitive Mysteries*. This work was performed three times for the public at the Arena Theatre Wolverhampton (matinee and evening Thursday, May 12th and evening Friday May 13th) (approximately 60 people per performance). Prior to these theatre dates the piece toured to schools in the Walsall/Birmingham area including Walsall College (Tuesday, 20th April 2010) and Sutton Coldfield College (Tuesday, March 16th, 2010). This tour featured both a workshop about the choreography and the musical composition as well as the performance of the piece itself and was disseminated to 6 form college students studying dance (40 students each school). Preliminary sections of the work were performed at the regionally popular Telford Dance Festival at the Oakengates Theatre on Thursday February 11th. *(approximately 400 people) (Thoms, 2010b)

was split into six groups, each responsible for devising a five-minute contribution to the choreography. These individual sequences were later spliced into a single, continuous narrative. As an aid to deepen their research, each group was issued with an additional set of exploratory themes: trauma, grief, violence, mental and physical confinement and concealment.

In their approach to the music the students were guided by two missives drawn from Graham's own practice: '(i) composition must in some way work with [her] movement; and (ii) the music should reflect the dance, not the other way around' (Thoms, 2010a). In the initial stages of the project various types of pre-recorded music were explored, but, by the time much of the choreography had been devised, the company abandoned this approach in favour of an original composition to be performed live with the dance[18]. My involvement in the project began at this point, but, as the work was already nearing its completion, a number of concerns arose: the structure and narrative of the dance were the primary determinants of the work's form; this, together with the mandate that the 'music should reflect the dance' was a challenge to compositional autonomy, style, management and control — it had serious implications for the material and discourse of the music itself. A broader set of questions was also considered. Although dance and music share a long and illustrious association, questions about that relationship continue to re-emerge: how is it possible, for instance, for two highly developed art forms — each with its own established culture, vocabulary and mode of discourse — to coexist in the same space without creating conflict, congestion or coercion? How can the realms of sound and movement be unified into a genuinely coherent form? The decision to take part in the project was made on the basis of these very challenges. The preliminary

[18] Unfortunately, as it transpired, a live performance of the music became unfeasible. Instead, an acoustic recording was made and arranged using Cubase Studio software.

compositional task, therefore, became one of locating a space within which to explore the identity of the music's own material and discourse, while remaining open and relevant to the demands of the project.

From a compositional perspective, the essential components of the project can be distilled from much of the foregoing: that is to say, primitivism as an expression of modernism; Graham's particular interpretation of the primitivist aesthetic; points of contact and relationship between visual and sonic forms of movement; and, examples and models of how this relationship has been approached by others. Each of these is considered in turn.

Primitivism and the Primitivist Aesthetic

The basic tenets of the project are not, themselves, without problems; there are traps to be avoided when re-imaging the work and aesthetic of other artists. A literal interpretation of known principles can compromise the consistency and coherence of one's own work.

The exploration of a primitivist aesthetic within a given set of expressive states (trauma, grief, concealment, etc.), therefore, demanded a genuine re-examination, not only of the dance concepts of Graham but also the principles of primitivism itself as a primary component of modernist style. Some of these have been neatly outlined (at least with respect to dance) by Graham's long-time collaborator Louis Horst in his pedagogical text *Modern Dance Forms in Relation to the Other Modern Arts* (1963). This seemed an appropriate starting point for the compositional research.

Modernism's fascination with the primitivist aesthetic, Horst (1963, p. 52) states, dates back to the early part of the twentieth century. It developed out of a strong desire to escape the four-centuries old, post-Renaissance concern for realism and representationalism in art: expressed through such ideals as balance, symmetry, naturalistic depiction and restraint. It made an appeal to the writings of the ancient Greeks, with which Renaissance artists and thinkers were deeply engaged. Modernism represents, in itself, a reappraisal of these very ideals. As Horst says, for one thing: 'Primitivism has released us from the tyranny of symmetry' (1963, pp. 57-59). Primitive art is essentially non-artistic: that is to say, it is integrated into the lives of the people, showing little concern for aesthetic qualities. It is both functional and symbolic. Primitive icons are more accurately understood as weapons of magic, designed to effect spiritual power. As such, they are largely abstract in form, devised as instinctual markers, primarily proffering a direct emotional appeal. Non-representational in style, many primitive images are, therefore, formalistic, angular, distorted, often asymmetrical, abrupt and vigorous in character. Horst includes an illustration of a West African 'Ancestor Figure' as an exemplification of some of these qualities; such figures are direct and free of embellishment, and there is little that is ornamental in their design (Fig. 7.1).

[Image removed]

Many twentieth-century painters have been influenced by these modes of expression, '…which might free them from the sexual, psychological, and aesthetic preconceptions of their own society' (Butler, 1994, p. 107). An early example of this can be seen in the paintings of Henri Matisse, for instance. *Le Bonheur de Vivre* (*Joy of Living* 1905-06), for example, although essentially representational, reflects a strong sense of the symbolic with its 'simplifying abstraction' (Butler, 1994, p. 31) (Fig. 7.2). This painting has had an important influence on some of the compositional material (see below).

Figure 7.2
Henri Matisse. *Le Bonheur de Vivre* (*Joy of living* 1905-06) Early example of primitivist expression in art, demonstrating a symbolist and abstract style. (Butler, 1994, p. 31)

[Image removed]

Martha Graham attempts to capture some of these primitive, symbolic qualities in her dance work through a sense of functionality and directness of approach. Transformed into bodily movement these qualities possess an honesty and directness of expression. For her, the effort of the dancer should not be concealed but clearly visible, and, indeed, emphasised in performance: in its physicality and forcefulness and through contraction and release, themselves primal elements drawn from the act of breathing (Graham, 1992, 7'42"-7'46"). The weight of the body and the force of gravity are made all the more evident through a narrative for dance articulated by an angular and abstract vocabulary of movement.

The Role of Music: its Context in Dance

These stylistic components have been central to thinking about an appropriate sound world for this piece. But what would the role of the music be, and how should it relate and respond? Unembellished directness, forcefulness, a sense of weight, asymmetry and awkwardness, contraction and release — there is much material in these characteristics alone that are open to exploration. But attempting to construct a generalised faux primitivism would risk inauthentic and banal imitation. The primitivist notions viewed through the 'prism' of Graham's work have not, therefore, been reconstituted directly through sound but held in the background and allowed to filter through, informing the process through suggestion at a more subliminal level.

A more constructive approach has been to consider the immediate points of contact. Both music and dance, it need hardly be said, are temporal art forms. The most fundamental connection between them is 'time': pulse, rhythm and durations — the basic currency — are delineated in dance through physical movement and in music

through variations in sequences of sound. Many composers, 'Sessions among them, have stressed the close ties that exist between music and bodily or gestural language' (Gardner, 1983, p. 23). Cone makes the link very clear: '…dance can sometimes clarify rhythmic relationships [in music] by creating visual analogies for them' (1961, p. 446). Stravinsky insists that, in order to be fully assimilated, music ought to be seen in performance (Gardner, 1983, p. 123; Stravinsky, 1947, p. 117). However, the value of mapping related sets of features from one art form onto another can be aesthetically problematic and can result in nothing more than simplistic, unedifying reinforcement. It evokes, perhaps, the (much to be avoided) *bête noire* of 'micky-mousing' (Jones, 2002, p. 70). There are various methods by which composition and visual movement can be made to relate and interact without recourse to rhythmic/visual analogues. A more interesting and imaginative approach has been to allow the music to create its own space: to establish itself as an underlay, in, around and against which the movement is able to interact more by suggestion. With occasional points of synchronisation (as an expedient for highlighting a limited number of gestures) unlike Horst, in his approach to *Primitive Mysteries*, much of the music for *Tilting Martha* studiously avoids such detailed specificity. The music is 'draped' over the choreography sharing its space whilst retaining its own identity. In this way it functions as a sound 'container' for movement, and helps to draw the individual sequences together into a tighter, coherent unit.

Although much of the dance had already been completed before the score was written, some segments of the choreography continued to be altered as the work developed. This created problems for musical sequencing and the score required continual

readjustments. A flexible approach has been needed in order to accommodate this, and it has had an interesting impact on the shape of the score [19].

The notion of structuring music as a series of time 'containers' brings to mind John Cage's approach in his rhythmic compositions — *First* and *Second Construction in Metal* (1939; 1940), for example, or, perhaps more importantly, *4'33"* (1952). The music for *Tilting Martha* is, to some extent, similarly divided into timed segments, which act as durational delimiters that correspond to the general structures of the dance. In this way, exact control is maintained over the general formal elements, while a greater degree of flexibility is allowed for internal details. Any musical/gestural coincidences that do occur, apart from one or two exceptions (at the culmination of the sequence at [00:21:11] for example), are largely fortuitous. Noises emanating from the dance movement — footfalls, interaction with the floor and between the dancers — are also incorporated into the sound world of the piece (see the sequence from [00:20:18 – 00:20:30]).

The music, then, is cut into seven sections, each corresponding to a separate dance sequence. This establishes the basic structure of the piece. In the early stages of development, video recordings were made of the dance rehearsals, from which a time code was established. Together with a description of the characteristics of each sequence, a table was drawn up with notes for possible musical responses (Table 7.1).

[19] An acoustic recording of the composition was made, and any necessary adjustments were made, again, using Cubase Studio software.

Table 7.1.
***Tilting Martha*. Time code and order of dance sequences, with notes for composition.**

Section	Timings	Sequence	Description Notes
1		**Opening sequence**	
	00:00 01:35 02:35	Opening sequence Opening sequence new group (5)	Stealth and concealment 'Grounded' material (Harp; tuned percussion) Pleading gestures (cello solo) —
	3:27		hiatus: 10 sec. silence
	3:41 4:42 5:32 5:48	Trio Regroup (5) New group (8) Solo entry (against group)	Pleading gestures continue. (Cello/alto flute melodic duet) Elevated angular gestures Gestures of despair
	6:31– 6:54		(hiatus: 16 sec. silence)
2		**Trojans**	
	6:54	**[sync. point]** Trojans' entry (3)	Gladiatorial. War-like. Power, force, aggression (change of timbre and texture — percussion)
	8:02	'**[sync. point]** Trojans' – sudden frozen posture	Music pause — accentuate adopted pose – stage centre
	9:11	Cont.	Energetic and war-like sequences. Large untuned drum sequence. (mini drum bursts/flute solo)
	11:48	Cont.	Repeated war-like sequence. Strong, angular arm movements, and upward gestures. (Dramatic untuned drum sequence).
	12:12	New group entry (8)	Foot-stamping patterns. Leave space for dance-generated sounds (hiatus: 18 sec. silence)
	12:30	Soloist entry	'Fallen' soldiers (soliloquy: harp – brief extract)
	12:41	Segue to: quintet	Lowered posture, grounded, stamping gestures. Leave space for dance-generated sounds (hiatus: 12 sec. silence)
3		**Trojan Women**	
	12:55	New duet sequence (+ stationary soloist)	Statuesque, stamping gestures carried over into new sequence. Change of timbre, texture. (Repetitive rhythmic ground: reiterated pulses) Pleading gestures (towards soloist)
	13:57	New group entry (5) Lined sequences.	Closely coordinated, diagonal movement across stage. Stamping motif continued. Continue patterned music throughout. Very gradual crescendo. Floor work, gestures of grief and despair.
	18:21	Solo interlude sequence	Gradual furtive exit by group. Despairing and crazed gestures. Soliloquy (Harp solo)
4		**Dual group sequence**	
	19:49	Sextet/Sextet mixed group entry. [sync. point]	Double entry. Duality between groups: (1) coordinated diagonal lines (stg. R) against (2) circular grouping (stg. L). First group becomes 'grounded', second explores upward movt. and gestures.(Metrical dance vocab. – use metrical pulses in music). Two types of music to delineate the split.

	21:07	Climactic trio leap [gestural sync. point]	Localised cresc. (drum roll climax). Amalgamate two types of material to complete.
	22:03	New group entry	Diagonal (front stg. R) metrical swinging arms movements. (Return to cello rhythmic ground)
5		**Full group (circular) entry**	
	23:04	Full ensemble (climax) Segues into:	Encircling entries from all sides, individual groups coalesce into full ensemble. (gradual percussion build up)
	23:25	Complete group sequence	Intricate, machine-like movements. Resembles individual parts of a working machine. (full instrumental ensemble: percussion, flute, cello, harp). Pitched percussion pulsing repetitive arpeggiated figures (three full iterations)
	24:30	Full group dissolves	
6		**Final sequence**	
		Segue	
	24:31	New trio entry Beginning of final sequence	Harp glissandos — flute/cello duet
	29:20	END	

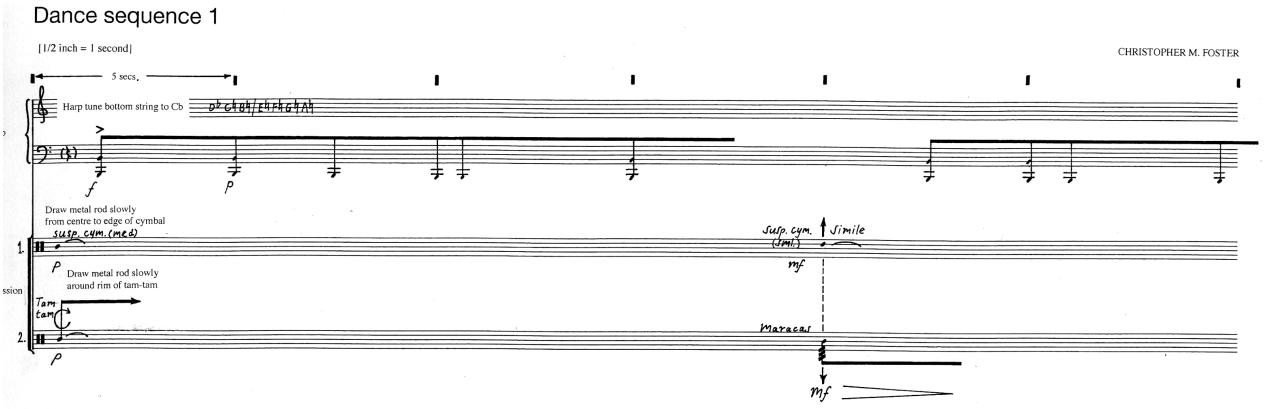
Characterising the Material

Each of these dance sequences is defined by its own distinctive set of movements and gestures. They can be interpreted symbolically or emotively. Therefore — referring back to Graham's dance vocabulary — symbolic gestures might be described in terms of their falling, rising, contracting or releasing content, etc.; or, emotively, as states of pleading, concealment, defiance, submission, yearning, and so on. How, and in what way, would the music relate to these? The problem, as stated, is one of devising a type of musical material that does not simply replicate gestures but offers sensitive concomitants, expanding the dance form into a wider field of expression. At the planning stage of the composition, then, a list of these visual gestures was tabulated, and their symbolic and emotive functions noted and mapped out. An effort has been made to keep the score free from excessive amounts of material in order not to smother the dance. This has been limited, therefore, to several recurring musical ideas each with

a restricted set of characteristics. In all, six kinds of material have been devised together with various hybrids and juxtapositions possessing a degree of mimetic representation:

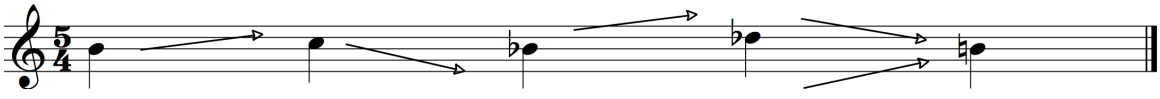
1. 'Grounded' gestures: the work opens with a harp reiterating a low B♮, punctuated by the occasional percussive entry (Ex. 7.1). It expresses a sense of confinement and containment.

Example 7.1.
***Tilting Martha*. Opening sequence (Pg. 1) [00:00:00 – 00:00:30]. Harp and percussion playing a 'grounded' and contained type of material.**

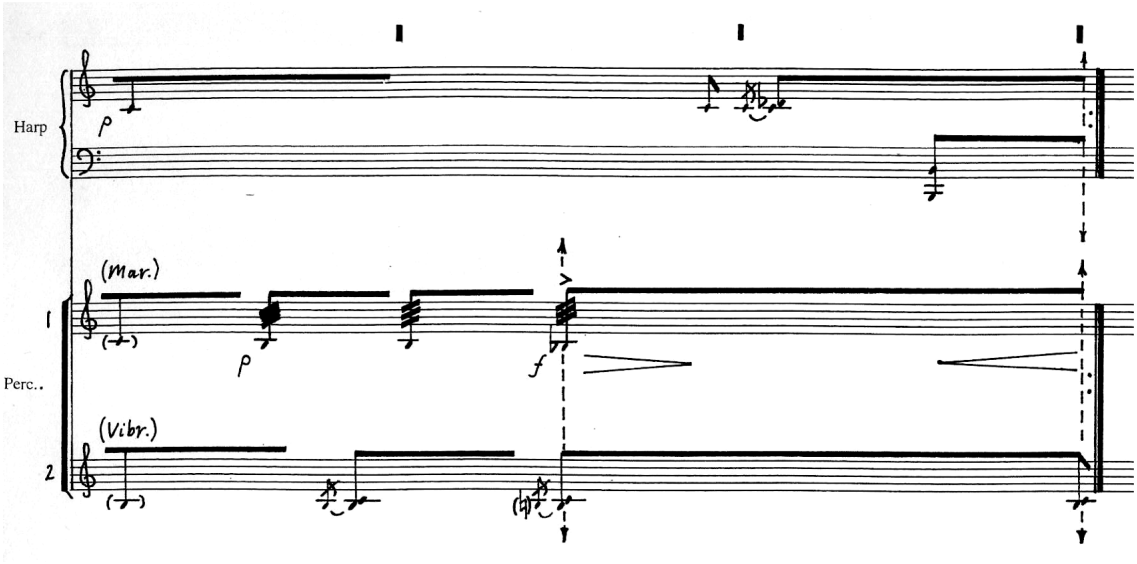


Persistent attempts are made throughout this opening sequence to escape the 'gravitational' pull of the low note; pitches 'peel' away chromatically above and below it (Ex. 7.2 a.), but they are largely unsuccessful, and the B♮ is continually reasserted (Ex. 7.2 b).

Example 7.2 a
***Tilting Martha*. Opening sequence. Pitch movement away and towards the ground B♮.**

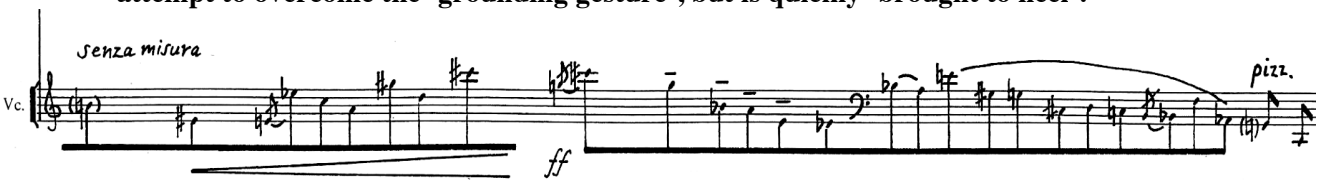


Example 7.2 b.
***Tilting Martha*. Opening sequence (Score, Pg. 2) [00:01:06]. Attempts to 'peel' away from the ground B♮, which persistently reasserts itself.**



This texture is articulated, enlivened and made more fractious by accented gestures and sudden changes of dynamic. The first serious bid for 'freedom' is made by the cello, but even this soaring escapade cannot evade the inevitable gravitational force, which pulls it quickly back down with something of a 'thump' (Ex. 7.3).

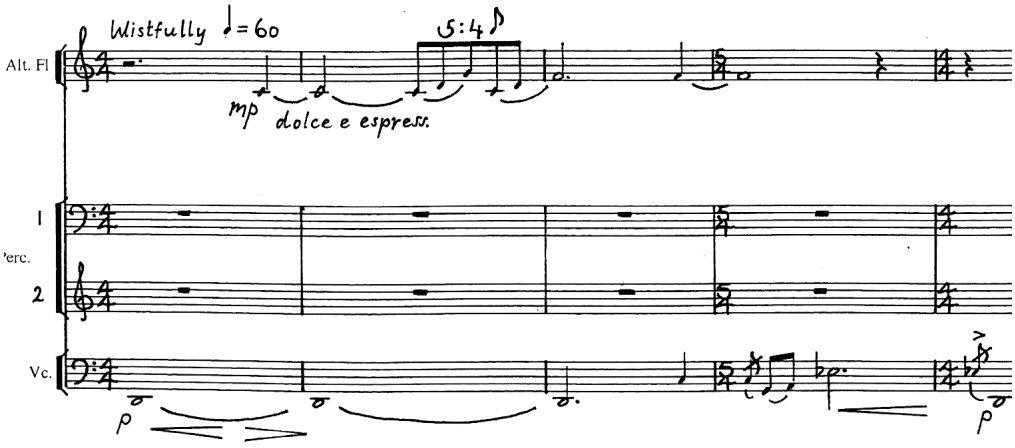
Example 7.3
***Tilting Martha*. Opening sequence (Pgs. 2–3) [00:02:36 – 00:02:56]. Cello line rises up in an attempt to overcome the 'grounding gesture', but is quickly 'brought to heel'.**



2. 'Fauve', archaic melody. This gesture, performed as a duet between the alto flute and cello, is a response to Matisse's *Le Bonheur de Vivre*, and possesses some of the expressive aspects of that Arcadian milieu. In its drone-like underlay the grounded theme recurs. The faux, plaintive primitivism of the melody is achieved by reference to the harmonic symbolism of the 4^{ths} and 5^{ths} that are used in its basic construction G – D – A and C (Ex. 7.4). The E♭ introduced by the cello produces a min.7th/aug.5th, which creates an affected nostalgia: a yearning, perhaps, for something that never really existed — a poetic fantasy. There is, indeed, much that is faux about the primitivist

aesthetic, as Horst (1963, p. 57) himself puts it: 'Modern man is not an aborigine', and that 'a truly primitive approach would be an affectation today'.

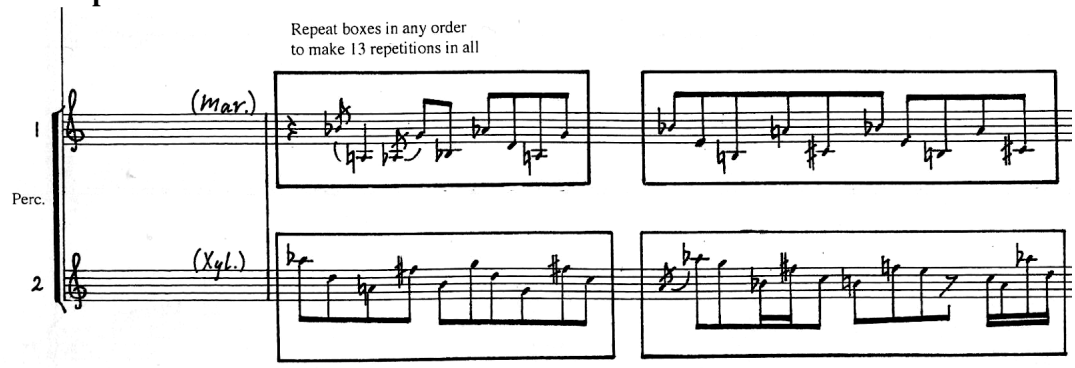
Example 7.4
***Tilting Martha*. Opening sequence (Pg. 4) [00:03:41]. 'Archaic' melody. Alto flute/cello duet.**



In its repetitive structure, this melody gives an impression of circling around in a perpetual loop, unable to break into new territory. Indeed, repetition is a key feature of much of the material in this piece; it lends a primitive fetishism to the narrative.

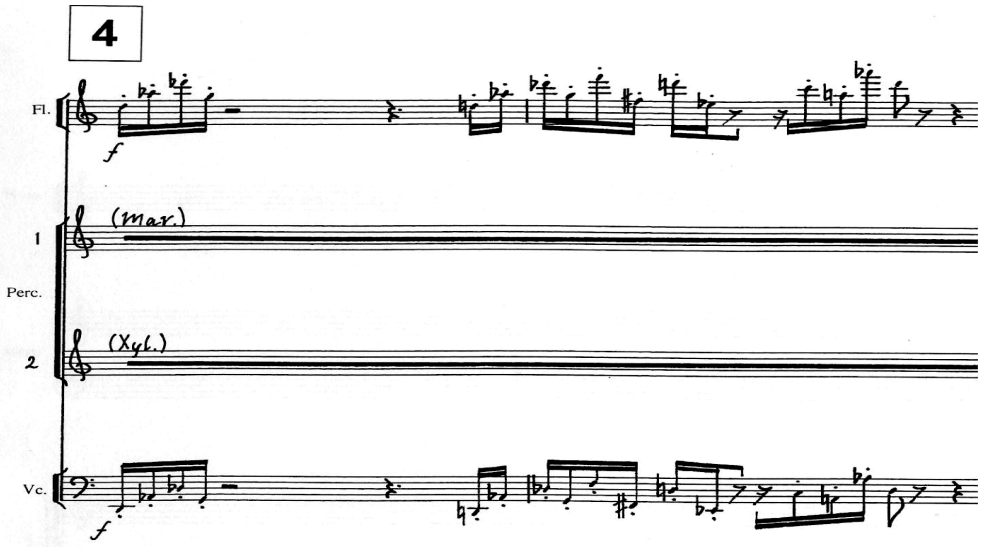
3. Repetitive pulsing gestures (tuned percussion). This material introduces into the piece the first element of rhythmic periodicity. It supports the more structured elements of the choreography at the beginning of Dance Sequence 2 (score pg. 7). Nevertheless, a degree of flexibility is also established through the use of mobiles. The material contained within these boxes may be rotated and repeated in any order, calculated to fit the overall durations of the section (Ex. 7.5). This produces a limited degree of variability to the material, providing opportunities of new configurations within a generally fixed texture.

Example 7.5
***Tilting Martha*. Dance Sequence 2 (pg. 7 [00:07:21]). Mobiles of repetitive, pulsing music. Tuned percussion.**



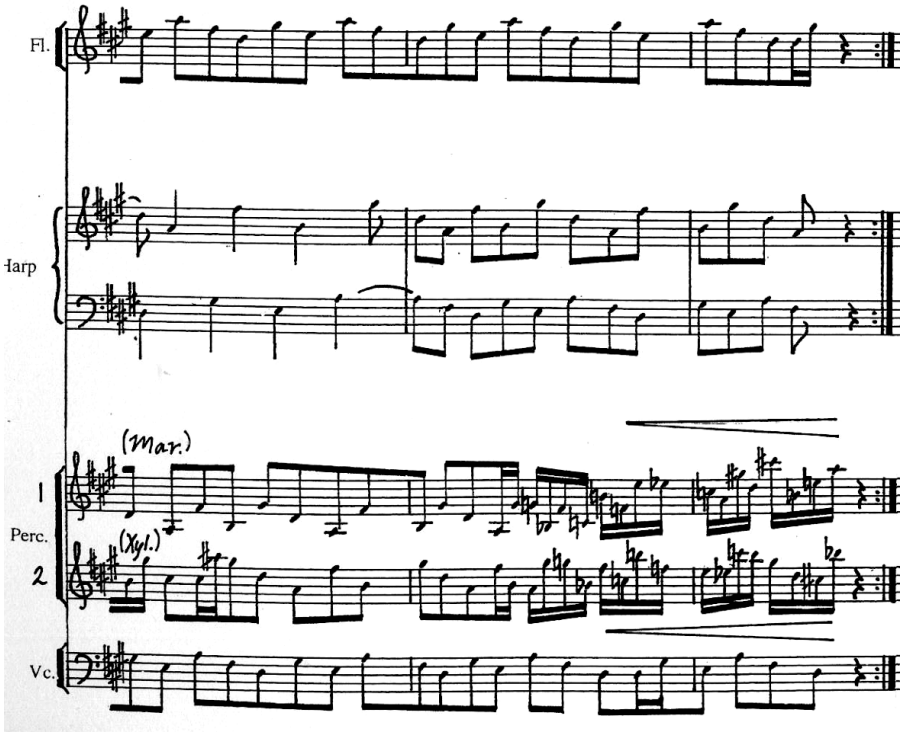
Its effect is magnified when juxtaposed against a more fixed set of phrases played four-octaves apart in rhythmic unison on the flute and cello (Ex. 7.6)

Example 7.6
***Tilting Martha*. Dance Sequence 2 (pg. 8) [00:07:29]. Mobiles continue on tuned percussion: cello and flute play in rhythmic unison above and below.**



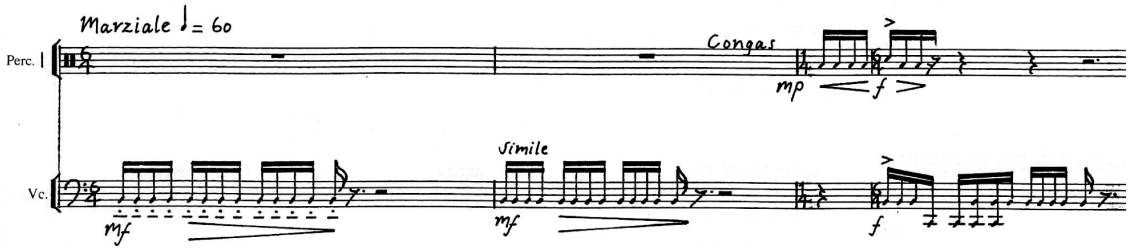
This material returns in Dance Sequence 5 (score pg. 20) as a reflection and expression of triumph over trauma and group cohesion. On this occasion the mobiles are replaced by a fully notated multiple ostinato of arpeggiated figures (Ex. 7.7).

Example 7.7
***Tilting Martha*. Dance Sequence 5 (pg. 20) [00:24:20]. Full group ensemble.**



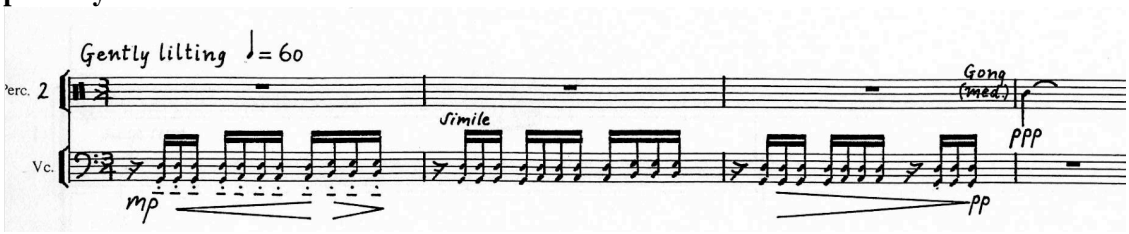
4. Repetitive pulsing gestures (cello/congas). The repetitive strain is extended into other forms of material. Starting with Dance Sequence 3 (score pg. 14) a figure first heard in the flute/cello lines of the previous sequence are reconfigured into a more hesitant language. This idea also incorporates elements from the 'grounded' gesture of the very first dance where the reiterated B♮ makes fresh attempts to expand into new pitches with a similar results and sense of constraint (Ex. 7.8).

Example 7.8 *Tilting Martha*. Dance Sequence 3 (pg. 14)[00:12:55]. Repetitive, pulsing material: cello and congas.



And, again, in Dance Sequence 4 (score pg. 17), this time thickened by 4ths and 5ths: a reference to those found in the earlier melodic flute lines (Ex. 7.9).

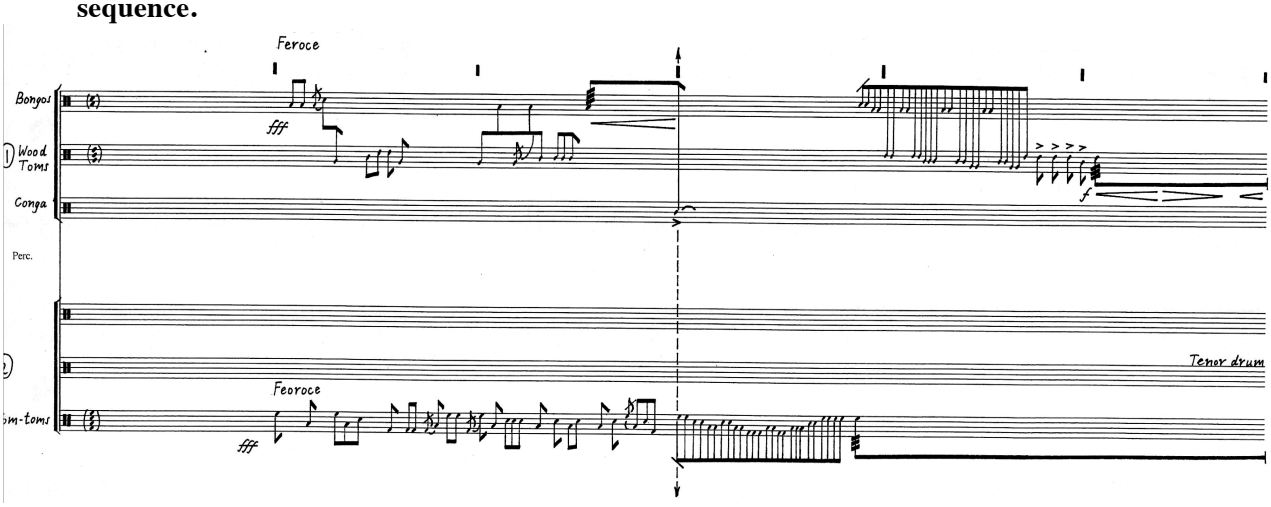
Example 7.9
***Tilting Martha*. Dance Sequence 4 (pg. 17) [00:19:50]. Pulsing material thickened with primary intervals.**



The unifying function of these reused elements, embedded as they are in various classes of material, begin to become apparent; they form a 'glue', which links the disjunct dance sequences together. When entirely new material is introduced the effect can be dramatic, as follows:

5. Unpitched percussion gestures. Here, for example, a segment of frenetic choreography is intensified by the injection of new material in a parallel drum sequence. It is, perhaps, the only example of mimesis in the score, as it attempts to capture the war-like 'Trojan' image chosen as the theme for this part of the dance (pg. 10, cue mark 6) (Ex. 7.10).

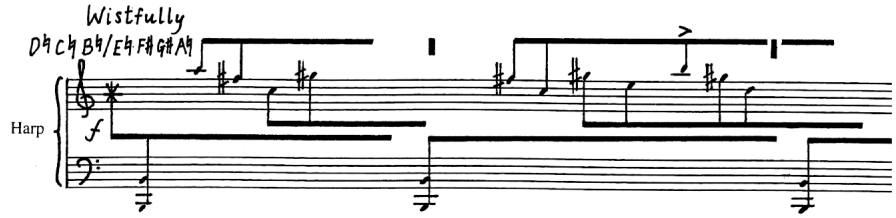
Example 7.10
***Tilting Martha*. Dance Sequence 2 (pg. 10) [00:09:11] 'Trojan' theme reflected in drum sequence.**



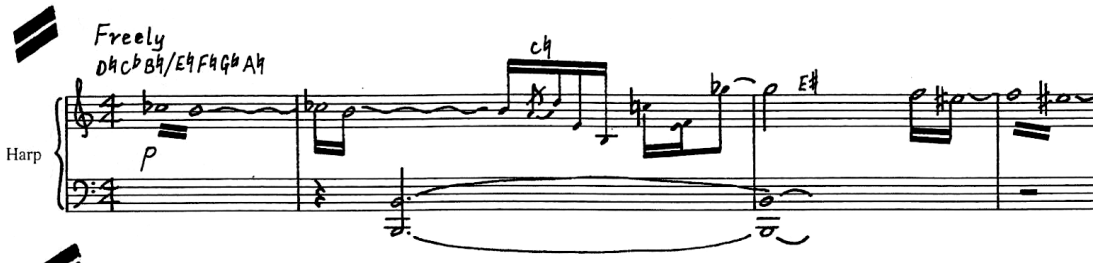
6. The 'Soliloquy' gesture (harp): This is another distinct class of material which makes an appearance in a variety of places throughout the score (see Dance Sequence 2, pg. 10 [00:08:39]) (Ex. 7.11a). Again, however, elements from other materials are dropped

into it: the repeated bass note makes reference to the opening of Dance Sequence 1. This type of material is used, principally, as a form of release, reappearing (recast, renotated and extended) in the solo dance refrain at the end of Dance Sequence 3 (pg. 16 [00:18:22]) (Ex. 7.11b)

Example 7.11a
***Tilting Martha*. Dance Sequence 2 (pg. 10) [00:08:39] Harp 'Soliloquy' material.**

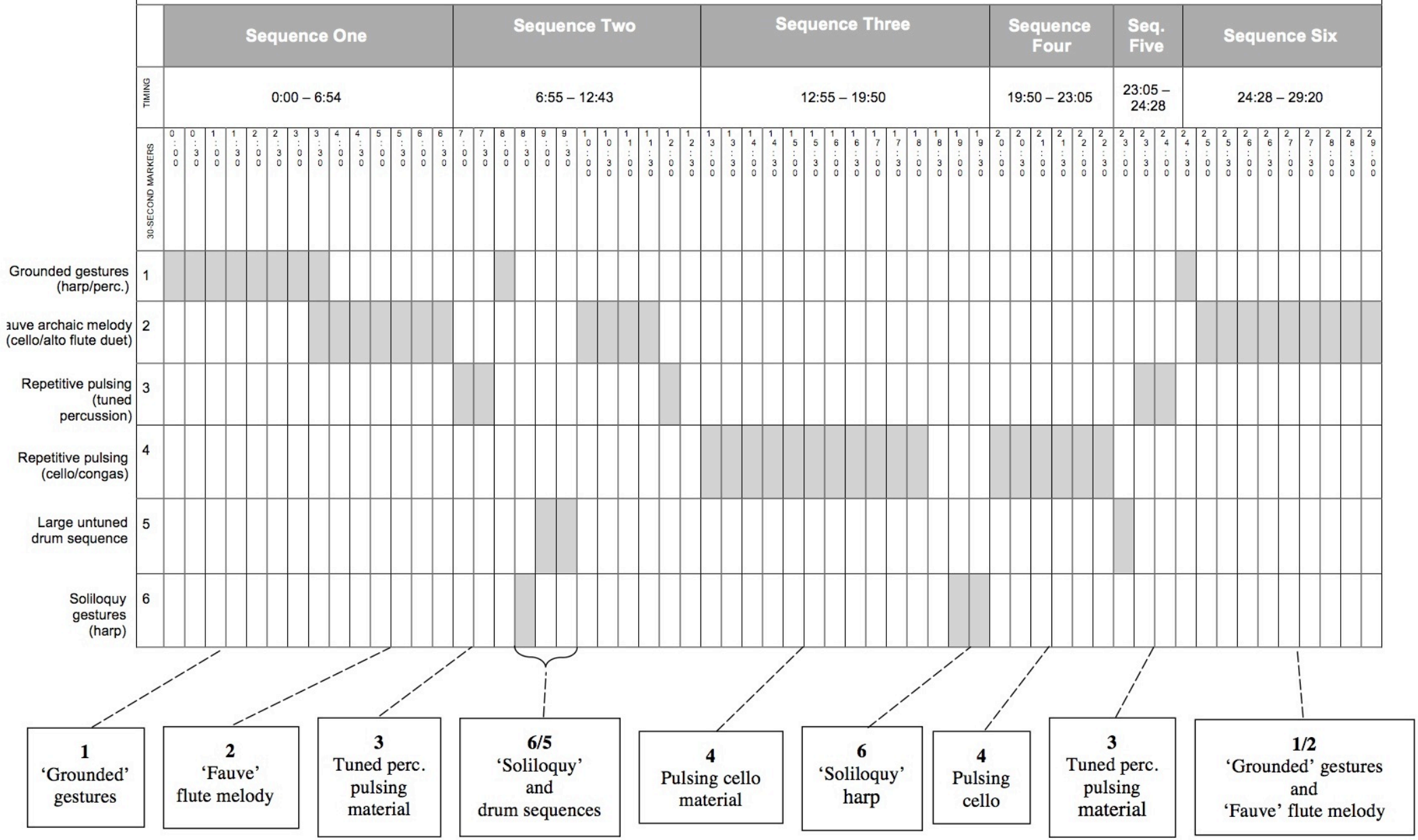


Example 7.11b
***Tilting Martha*. Dance Sequence 3 (pg. 16) [00:18:22] Harp 'Soliloquy' material.**



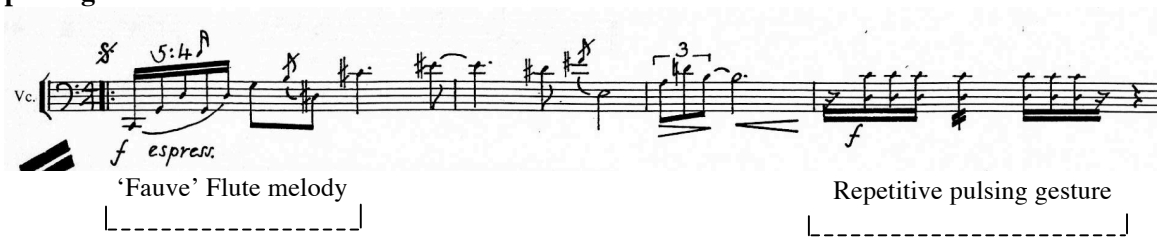
Represented in grid form, it is possible to see how all of the foregoing material is distributed across the work as a whole, highlighting its structural function in the process (Table 7.2). A very general recapitulative structure emerges, with the opening 'grounded' gestures and melodic flute material returning at the end in a valedictory gesture. The repetitive pulsing material, in both tuned percussion and on cello and congas, occupies the central portion of the dance, bookended by the large drum and 'soliloquy' material.

Table 7.2
***Tilting Martha*. Grid: general distribution of materials across the piece (timings approximate). Main order of material distributed laterally (bottom)**



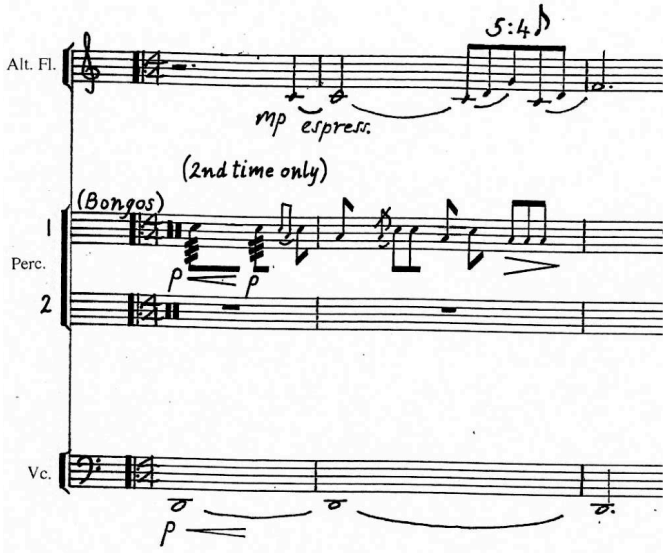
Hybrid forms of this material are also formed from an amalgam of different gestures; sometimes in combinations; sometimes simply overlaid. Example 7.12 is part of a solo cello segment from Dance Sequence 3 (pg. 15: after cue mark 7). It is an amalgam of transformed material from the 'Fauve' flute melody (see ex. 7.4 above) followed by the repetitive pulsing gesture from earlier in the sequence (see ex. 7.9 above)

Example 7.12
***Tilting Martha*. Dance Sequence 3 (pg. 15) [00:15:07]. Cello. Amalgam of flute melody and pulsing material.**



And example 7.13 demonstrates a simple juxtaposition from Dance Sequence 6 (pg. 23) of the 'Fauve' flute melody itself with the drum material from midway through Dance Sequence 2 (see pg. 10, cue mark 6).

Example 7.13
***Tilting Martha*. Dance Sequence 6 (pg. 23) [00:26:45]. Amalgam of elements from the flute melody and drum material.**



Instrumentation

The instrumentation (Fig. 7.3) has been used in such a way as to highlight the conflict between simplicity and confusion. These oppositions are expressed largely through timbral and textural contrasts. The flute, harp and cello attempt to establish a melodic intimacy throughout, but this is often disrupted by violent outbursts in the percussion. In performance it is intended that the dichotomy of these oppositions should be emphasised.

Figure 7.3
***Tilting Martha*. Instrumentation and suggested layout.**

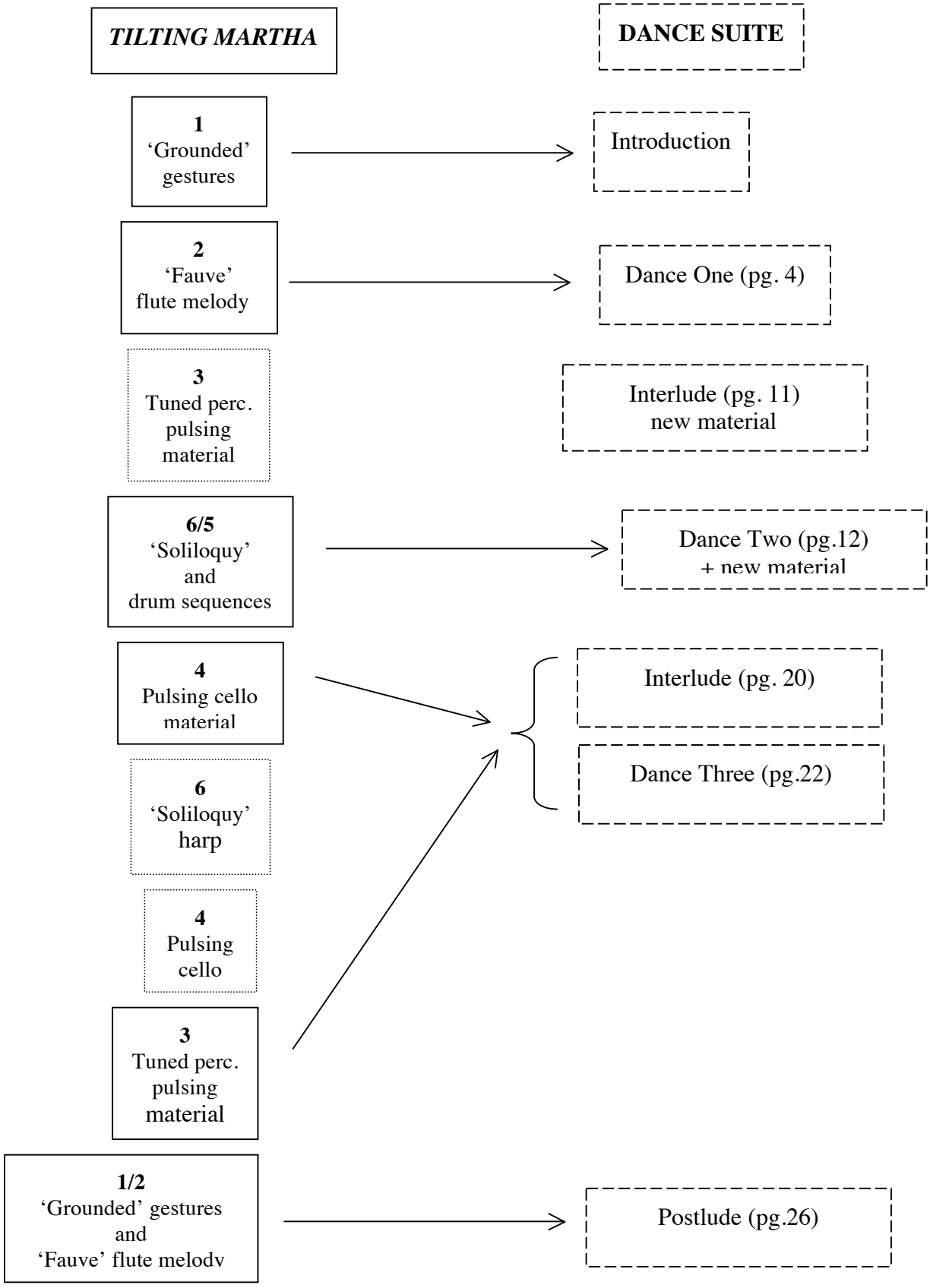
Flute (+ Alto flute)
Harp
Cello
Percussion (2 players)

> **Player 1:** Marimbaphone, glockenspiel, 3 suspended cymbals (small, medium, large), 3 gongs (small, medium, large), bongos (high, low), congas (high, low), 3 wood-headed toms (small, medium, large), bass drum.
>
> **Player 2:** Tam-tam (large), vibraphone, xylophone, tubular bells, 3 suspended cymbals (small, medium, large), 2 gongs (small, medium), 4 tom-toms, tenor drum

Dance Suite (to *Tilting Martha*)

The score for the *Tilting Martha* is configured entirely around the structure of the choreography: it is informed by and conforms to its expressive needs. The structure is delineated by numerous repetitions and slightly transformed reiterations of the six classes of material outlined above. A second score — *Dance Suite* — has been produced as a comparative study. In it, the material is recast from the perspective of a music-oriented rhetoric. Consequently, the structure is different, new material is added and there are a greater number of instruments. Since the essential differences between the two works lie in the structure itself, a comparative diagram serves to draw out this distinction (Fig. 7.3).

Figure 7.3
Comparative analysis of structures of *Tilting Martha* and the Dance Suite



Chapter Eight
Desire Lines I: For Trumpet and Piano (without pianist)
Desire Lines II: Version for Trumpet and Vibraphone

Desire Lines began as one strand in the *Biomechanical Studies* and so employs some of the material from that set. This strand was extracted so that it could be explored from the perspective of the soloist and what it means to write a solo piece: musically, philosophically, psychologically. It also investigates the nature of hierarchies by drawing attention to the relationship, for example, between the composer and performer, and between the soloist and (absent) accompanist. There are two versions of this piece. The first is for trumpet and piano (without pianist) the second is for trumpet and vibraphone (with vibraphonist). In the first, the relationship between composer and performer is re-imagined from the viewpoint of performer responsibility and how they might manage and control the presentation of material, which has a bearing on the essential character of the composition. In the second, the inclusion of a vibraphone drastically alters the dynamic of that relationship, offering its own comparative analysis of the different ways in which two objects, placed together, can energise one another. In both versions the structure is divided into three parts, between each of which a musical insert is placed. There are four inserts and the soloist is at liberty to make his or her own selection at will.

Writing to the Characteristics of the Instruments

Composers are persistently faced with the problem of writing for instruments they do not themselves play. Acquiring an insight into an instrument's capabilities is clearly important but it extends beyond questions of technique. A more important (and more

interesting) set of questions concerns not simply what instruments can do but what is the core characteristic of their voice. Inroads into this can only be gained in the end through the compositional process itself. When discussing his *Sequenzas,* Luciano Berio claimed that '[a] musical instrument is itself a piece of musical language' (Halfyard, 2007, p. 85). However, performers can be an invaluable source of information, and observing them in performance can lead to important insights.

The trumpet possesses two distinct traits of which the composer would do well to be aware. One of these concerns quality of expression. The trumpet is often associated with its historical function as a military instrument —probably because of its post-horn tradition — in which its main purpose has been to provide the clarion call: signalling message or alerting danger. In the context of the ceremonial it is often depicted as the quintessential fanfare instrument. But the trumpet is not restricted to these historical roles. There is much about the modern valve instrument that empowers it as both a sensitive and expressive voice. Another significant element is the influence the instrument's physical blueprint has on the psychology of the player. Although valve systems alleviate some of the problems that once encumbered pitch production and tuning, the trumpet (like all brass instruments) remains rooted in the fundamentals of its harmonic design. Locating pitches on the instrument requires work. Unlike the pianist, say, whose instrument is essentially pre-programmed, a brass player must first image their notes before they can reproduce them accurately. In this respect, performance on the trumpet is not so far removed in practice from that of singing. This has important implications for the kinds of creative tension brought to a performance, and the nature of the material that might emerge as a result. An awareness of these characteristics

gives the composer an opportunity to take the instrument in a direction that might subvert its traditional, rhetorical roles, towards more lyrical possibilities.

Musical Hierarchies and Improvising Pathways

Hierarchies implicit in musical relationships form part of the exploratory material for this piece. This is implied in the title itself. A desire line is a term conjured up to describe those pathways that pedestrians make when they deviate from an official path. It illustrates some of the tensions between the built environment and our relationship to it. This notion has been attributed (perhaps incorrectly) to the French philosopher Gaston Bachelard (1994). In *The poetics of space* he explores the idea that the essential character of a space is established and defined not by its architecture, structure or intended purpose, but by the way in which it is inhabited and used: its lived-in state. In this context he highlights the prevalence of improvisation in the use of spaces, which is often at variance with the original plans and designs:

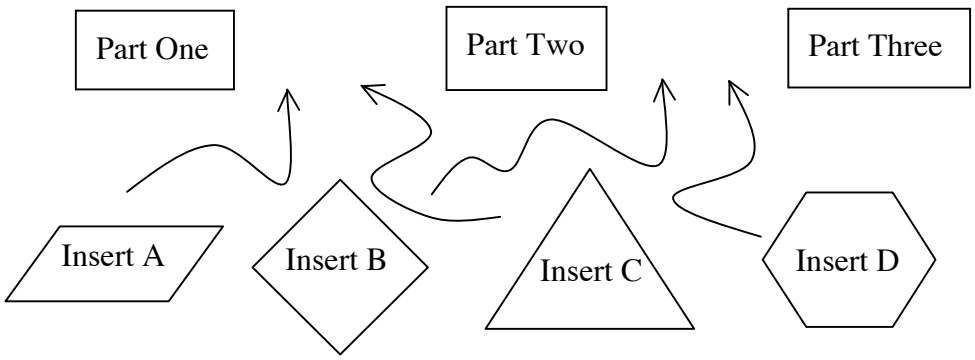
> A desire line is typically the most direct or easiest path to navigate between two points. Its width, depth, and degree of definition represent the amount and frequency of use and can reveal a history specific to the use and character of a particular site (Collective, 2012).

This notion is explored in *Desire Lines I and II* through an investigation of the ways in which performers might 'inhabit' the space created by a composition: what do they make of the materials and structure, and how do they relate to each other in performance? In short, it explores how performers might deviate from a possible 'official path'.

Both compositions have a compendium-like structure. The materials and form of each are determined by the composer, through which the performer navigates their own

pathway. With the inclusion of a set of inserts, the player can exercise a degree of control over the material included, and, hence, the character of the piece and the way it unfolds. Just as Bachelard examines how individuals use an architectural or pre-determined flow through space in such a way as might sometimes over-ride the expectations of its creators, so this piece examines the assumption that it is at all times and everywhere the composer's responsibility to fix each and every parameter of a composition. This idea sensitively subverted, perhaps, produces a living (lived-in) quality and representation of the work. (Fig. 8.1).

Figure 8.1
Desire Lines I and II. General schema of the structure showing possible options for the different inserts



This aspect draws again on the notion of flexible exactitude in composition, previously explored in the *Biomechanical Studies*, and it references the assumption that music is, at its core, a serendipitous art form. Tentative comparisons could be made with a number of works, including, perhaps, Boulez's *Troisième sonate pour piano – formant 3 – miroir* (1957), but only insofar as attention is drawn to the relationship between the composer and performer.

The problem of hierarchy is approached, also, through an investigation of the relationship between the performers themselves: that is to say, the power relations

inherent in the association of soloist to accompanist. In many works of the solo/duet type, the solo instrument determines many aspects of performance, commonly attended by the acquiescing accompanist, *colla parte*. To emphasise this and, perhaps, problematise the imbalance in the relationship, in *Desire Lines I* the accompanist is removed from the arena entirely, the accompanimental material being manipulated directly by the trumpet itself. This, perhaps, could be seen as a critique, giving a more veracious account of the soloist's power and influence in performance. The piano is imagined as a resonating box. It is prepared by placing pencils between the key heads and the frame in such a way that a selection of pitches is isolated and allowed to resonate (Fig. 8.2). The accompaniment is thereby self-generated: the player wringing it from the piano by directing the trumpet onto the strings.

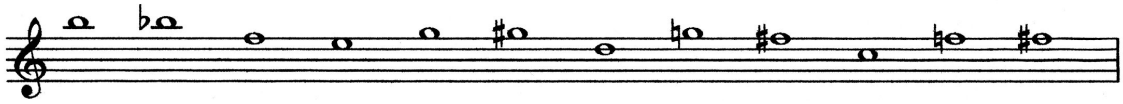
Figure 8.2
Desire Lines. Prepared piano. Pencils place between the key heads and the frame isolate selected pitches and allow them to resonate

Musical performances frequently leave a residue as a shadow of sound carried away in the memory of the listener. The resonating piano here references this phenomenon,

perhaps, contributing an almost nostalgic bloom over the piece: a shadow created during actual performance, as it were.

The pitch-set from which the material in this piece is built is the same as that used for the *Biomechanical Studies* (Ex. 8.1)

Example 8.1
Desire Lines I and II. Pitch- and interval-set from which the material in the piece is derived.



These are the pitches that are isolated on the piano. A harmonic logic exists, therefore, between the piano and trumpet (although the trumpet deviates from this set from time to time). There is also an analogical consistency, perhaps, in the conceptual connection between the nature and physical makeup of the trumpet and the harmonic spectrum of the piano with which it seeks to engage.

Using the piano in this way is not without precedent, of course. The most obvious example is to be found in Luciano Berio's *Sequenza* X for Trumpet (1984). In his piece, however, a pianist is required, since a variety of chordal shifts are part of the material. In *Desire Lines I*, conversely, the pitch set remains fixed throughout: the harmonic resonances being framed, so to speak. But from within this 'frame' various pitches and colours emerge as the trumpet excites different regions of the spectrum at different points. By way of a visual representation it could be compared, perhaps, to some of the geometrical paintings of Paul Klee. In *Ancient Sound, Abstract on Black* (1925), for example, different colours are 'sealed' within a series of confined spaces. But the viewer is not confined: they can shift their focus from one region to another across the painting as a whole (Fig. 8.3).

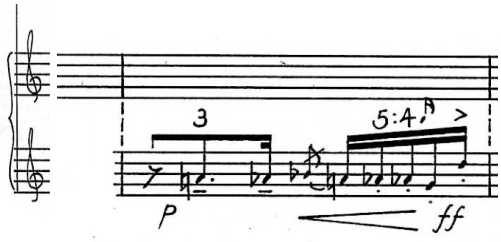
Figure 8.3
Paul Klee. *Ancient Sound, Abstract on Black*, 1925.

[Image removed]

It would not be stretching a point too far to suggest that something similar is at play in *Desire Lines I*. The trumpet focuses on various points of harmonic colour from a fixed palette of frequencies by directing different pitches towards different points of the frame.

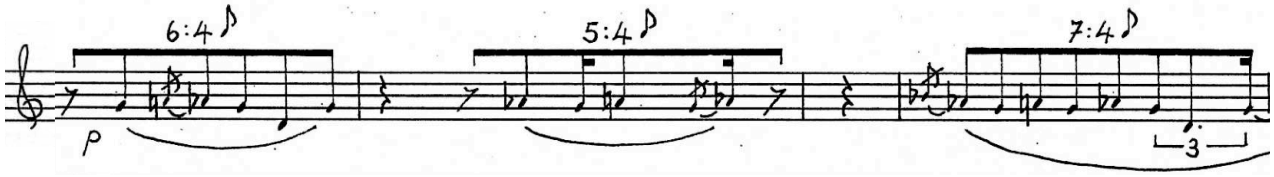
What is the link, then, between the trumpet and the piano in *Desire Lines I*, and how might it be interpreted by the listener? A number of logical connections exist both between the instruments and the material. The first, as has been noted, lies in the link between the harmonic spectrum and the pitch set, which forms the basic recipe for the piece. During its composition, experiments were conducted to explore the results produced by playing different figures and gestures into the piano, from different distances, directions and intensities. Some of the responses were noted and incorporated into the trumpet part itself, further strengthening the physical connection. At the opening of Part One, for example, the trumpet makes the following gesture (Ex. 8.2):

Example. 8.2
***Desire Lines* I. Trumpet, Part One, first system**



This material creates a strong beating sensation between G and A-flat, which is then taken up by the trumpet and incorporated into its next phrase (Ex. 8.3):

Example. 8.3
***Desire Lines* I. Trumpet, Part One, second stave**



It is suggested that the listener focus on these kinds of associations throughout the piece. What is projected into the piano by the trumpet is then reflected back from the piano; what emerges from the piano enters again into the trumpet part and is then explored and transformed it into new material.

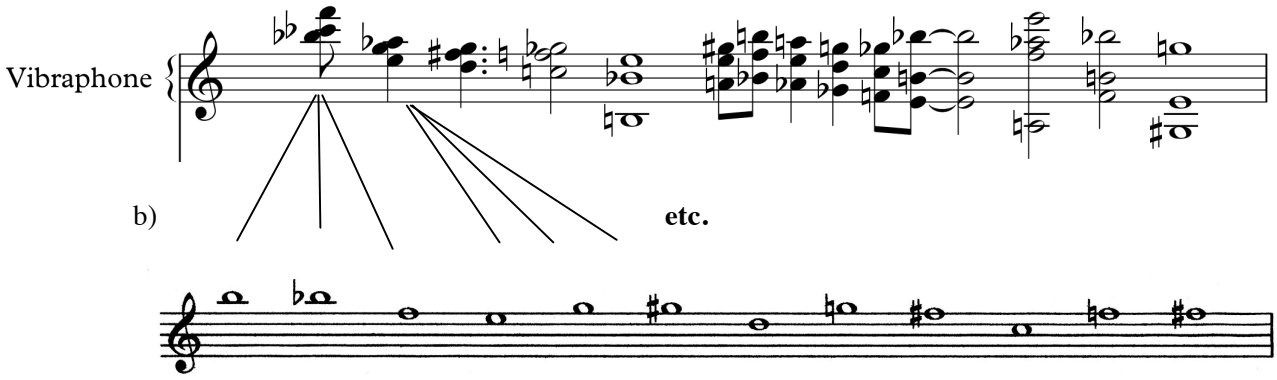
Desire Lines II for Trumpet and Vibraphone

With the inclusion of the vibraphone the dynamic and energy of the work is substantially altered. The trumpet part is identical with that in *Desire Lines I*, but in this piece it no longer maintains an unassailable command. As if to magnify the fact, the opening vibraphone part embarks on a formal, isorhythmic structuring of the pitch material from which the trumpet part is made. The trumpet is presented with a new context and is forced into a more democratic negotiation with its partner.

For the isorhythmic material, the pitch-set is divided into six harmonic regions and presented in a *color* of chordal clusters. The *talea* consists of a series of fourteen durations characterised by an initial tendency to reduce in speed. This configuration permits three passes of the *talea* to eight of the *color*. Correspondence is reached at the halfway point so two cycles of isorhythm are completed in all (Ex. 8.4 a–b).

Example 8.4 (a and b)
Desire Lines II. Vibraphone. The *talea* and *color* combined. Fourteen durations and six chord clusters derived from the pitch set (below)

a)



It is not intended that this isorhythmic technique be employed to take mechanical control over the musical structure. Indeed, it is used simply as another resource: a means of pitting one type of material against another to explore its quality in a different context. In later sections of the piece the vibraphone 'accompaniment' becomes less meticulous, being generally enfolded into the overall structure to provide an alternative commentary on the trumpet material.

Chapter Nine
'Each Through His Own Eyes'

'*Each Through His Own Eyes'* is a song setting for soprano, flute and viola; consequently, like *Tilting Martha,* it forms a musical conjunction. The investigation becomes one of testing the role of music in relation to its paramusical context. Transtextual and transcriptive processes are key aspects of this, as a pre-existing work (the text) is transcribed and transformed into a new hybrid form. This composition explores and magnifies these processes, and adds a third: a transgressive process. Setting a text to music constitutes a kind of heightening of speech: it reshapes the original source into an elevated and unusual form and mode of expression: it makes 'strange' that which is 'commonplace' (everyday language). However, with poetry, the original form is itself already in a heightened literary state, which renders it a more complex, saturated and richer experience. The text-setting process is a fascinating one. Dewey (1934, pp. 104-105) makes the case that when negotiating any art form an integrated experience takes place in which the complete human sensorium is brought into play. A painting, for example, does not simply offer a disembodied visual representation, it stimulates tactile and even proprioceptive responses: the sharpness of a table corner or the curvilinear outlines of an apple are not simply abstract notions, they are objects of our experience. Something similar takes place when negotiating a written text. A panoply of responses is stimulated, often surreptitiously emerging from the sounds of words and their associated connotations: not only words as defined, but also half- or misremembered. We reconstruct from the written word an integrated experience that relates to other aspects of our life — feelings, impressions and understandings. This chapter examines all of these aspects: the various approaches that

have been applied to text setting, the essential issues involved in the music/written word conjunction, and the approaches adopted in the context of this particular setting.

There are various ways of thinking about the character of this problem and there are many different approaches towards its accommodation. How should (or how does) music form a creative and purposeful amalgam with text? Again, a little historical context is informative. Music has primarily played a supporting role in its relations with the written word, adhering to what Peter F. Stacey terms the 'principle of textual primacy' (1989, p.10). This has been strongly allied with the notion of musical/textual congruence: that is to say, mimetic musical representations of the language, iterating the text by means of imitation. These principles (like most foundational aesthetic attitudes in the West) originate with the ancient Greeks. In the *Republic*, Plato (1993, p.97 [400a]) issues the enjoinder that when setting a text to music 'the metre and the tune [should] conform to the words…rather than…the words…conform to the metre and the tune'. This is espoused as an ethical conviction. The dual principles of (1) textual primacy and (2) mimesis, then, form the basis from which the art of song setting has emerged and evolved — music adhering to language both in its rhythm and meaning — and this has persisted through various adjustments and changes of emphasis through to the twentieth century.

The rule of textual primacy begins to be undermined in the nineteenth century. In his famous tract — *The world as will and representation* — Schopenhauer (1909, p. 341) declared music to be a direct expression of the 'quintessence of life and its events', the 'in-itself of all phenomena', not a representation of *particular* ideas or events in themselves. He goes on to add: 'Thus, if music is too closely united to the words, and

tries to form itself according to the events, it is striving to speak a language which is not its own'. According to Stacey (1989, p.13), this constitutes a move towards the principle of musical primacy. It also promotes a move away from of low-level, mimetic congruence (a musical representation of the details of a text) towards high-level mimesis (a musical reflection on a text's general emotive content and mood). This rejection of the Platonic injunction allows music to rise to the head of the arts, and it makes for radically different relationships between sound and text. And, although some composers have opted to remain faithful to the Classical model others have developed entirely new ways of configuring the two.

Although Schoenberg introduced the new vocal resource of *Sprechgesang* in *Pierrot Lunaire* (1912), the clearest indication of change in this relationship becomes evident in the period following the Second World War, with the vocal settings of composers such as Boulez (*Le Marteau sans Maître* (1954)), Stockhausen (*Gesang der Jünglinge* (1956)), Cage (*Aria* (1958a)), Mauricio Kagel (*Anagrama* (1958)) and Luciano Berio (*Circles* (1960)), among others. In 1958 Boulez (1991a, pp. 39-43) makes the case that there was no point in attempting to imitate the 'natural' flow and expression inherent in text, since the act of setting it to music effectively destroys its original integrity. 'What is natural [is] already ruled out the minute one decides to combine words and music', because:

> Singing implies a transfer of the sonorities of a poem into musical intervals and rhythmic patterns which are fundamentally different from the intervals and rhythms of speech; not merely an enhanced power of diction, but a transformation and…dismembering of the poem (1991a, p. 41).

A replacement for the Platonic, affective relationship, is, for him, the structural one. Here the poem forms the backdrop to its musical treatment, becoming, in his phrase

'centre and absence of the whole body of sound' (*ibid* p. 40). As a result, 'a whole web of relationships' (in addition to the affective) is made available, from pure sound to its 'intelligible organization'. With regards to intelligibility, he says, 'If you want to understand the text, then read it…there will be no better solution' (*ibid* p. 42).

Towards the end of the nineteenth century literature itself underwent a process of reconfiguration when narrative and semantic logic began to be viewed as confining strictures. The condition of music was embraced as a paradigm for the other art forms. In the field of literature Symbolist poets, such as Stéphane Mallarmé began to create a vocabulary — in works such as *Un Coup de Dés Jamais N'Abolira le Hasard* (1897) — that attempted to free itself '…from the bonds of narrative and coherent semantic statement' (Stacey, 1989, p. 14). In 1923, the Dadaist painter, Kurt Schwitters (Richter, 1965, p. 147) claimed that

> The basic material of poetry is not the word but the letter. The word is: 1. A combination of letters, 2. Sound, 3. Denotation (significance), 4. The bearer of associations of ideas.

Indeed, for a composer such as Berio, basic vocal material is further filtered and parametrically condensed to its phonetic or even paralinguistic elements. In this context, any form of representation becomes a reverse step; as Stacey says: '…when the word is not longer necessarily conveying a logical message, should the composer feel obliged to make it intelligible or even audible?' (1989, p. 16). A range of compositional approaches towards the investigation of vocal sounds has evolved, then: settings driven by textual or musical primacy, divisions by verbal sub-units, deconstruction of letters into their phonetic components and the framing of paralinguistic elements. Music that employs phonetic or non-lexical elements is a separate case because the semantic

underpinnings are either obscured or entirely absent. In approaches where the lexical context is maintained, music's role is to transfer language function from the pragmatic to the aesthetic.

The aesthetic treatment of language brings to the word a broader, connotative meaning. It also refocuses attention, to some degree, away from semantic content (although this remains present) towards image, allusion or sound content. Where the semantic content forms part of the compositional material, text setting becomes a type of exegetical exercise. The music serves to decode, or promote, a specific interpretation, and so becomes (in contradiction of Boulez (1991b, p. 42)) a 'reading': an investigation into the text's semantic structure. When conjoined intertextually with poetry, music adds a further layer of content to an already saturated form. A parallel process comes into play, in which the text, with its symbols and allusions, runs alongside a musical content that has its own historical referent structures and codes of meaning. The result is an abundantly rich form of expression.

The Texts: Semantic Content

'*Each Through His Own Eyes*' is located somewhere between a text-driven and a reading-driven approach. Lawrence Kramer (1989, p. 144) tells us that 'The traditional topics of the art song are love and death as they are experienced by the isolated, private individual'. The texts selected for this work likewise focus on the experiences of the individual. Three poems have been used: (1) a traditional Inuit song, by the shaman Aua (Philip and Foa, 1995); (2) a thirteenth-century Koan verse from the recorded sayings of the Zen master, Wumen Huik'ai (Seattle, 2013), and (3) a modern Japanese poem by Haruo Shibuya (1976):

[Text removed]

This collection of texts is thematically coherent. Linked by themes of birth and awakening, rather than death, they present a cycle of ideas that, in Kramer's (1989, p. 147) words, makes 'an effort to come to grips with something' crucial. They are chosen for their depth of insight and feeling, masked by a style that is deceptively simple and direct. *Morning Prayer*, for instance, is a children's song of almost naïve optimism; it is intended as guidance for an infant about to undertake its first journey. However, it is a journey that may enter into the 'Land of Day', which is 'thought to be the heaven where people who have been murdered or drowned go' (Ehrlich, 1999). This darkens the

ostensibly playful spirit. *Anerca* — the Inuit word for both 'breath' and 'poetry' — is rooted in the culture as an expression of deepest thought and feeling:

> Songs are thoughts, sung out with the breath when people are moved by great forces and ordinary speech no longer suffices. Man is moved just like the ice-floe sailing here and there out in the current. His thoughts are driven by a flowing force when he feels joy, when he feels fear, when he feels sorrow. Thoughts can wash over him like a flood, making his breath come in gasps and his heart throb (Wiebe, 1972, p. 68-69) [20].

For these people, ordinary speech clearly fails to express those thoughts and experiences of greatest moment.

The Koan verses, conversely, are less concerned with expressions of feeling and more with contemplation and enlightenment. It is a sophisticated offering that pairs away extraneous verbiage in order to concentrate its imagery. Nevertheless, it is also problematised by the deliberate dichotomies that are placed at its heart: imponderable dualities that embody the polarities of consciousness, designed to 'confound the discursive intellect, freezing it into a single ball of doubt' (Griffith Foulk, 2000, p. 15). The line: '*Each Through His Own Eyes'* is one expression of this duality, and used for the title, it sets the tone of the piece.

The poem by Shibuya is, on the surface, the more elaborate and problematic of the three texts, containing a complicated set of images and ideas. By making reference to the subconscious and to dreams, this poem instantly locates itself within a complex post-Freudian, twentieth century milieu. All three poems offer a rich vein of signification and allusion, consequently a much greater degree of balance obtains between them, and

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[20] Cited in Wiebe, from the findings of Danish explorer and anthropologist Knud Rasmussen (1931) *The Netsilik Eskimos. Report on the Fifth Thule Expedition*. Copenhagen. pp. 121-24, **VII** (1).

the musical setting responds to this on a variety of levels. Certain words tend to coalesce in the imagination: 'birth': beginnings, possibilities, nascent journeys; but also pain and uncertainty. 'Experience': enrichment and growth; but also, perhaps, spoilage. 'Flower': life and openness; but also fragility. All such associations work their way into the compositional process on both a conscious and subconscious level.

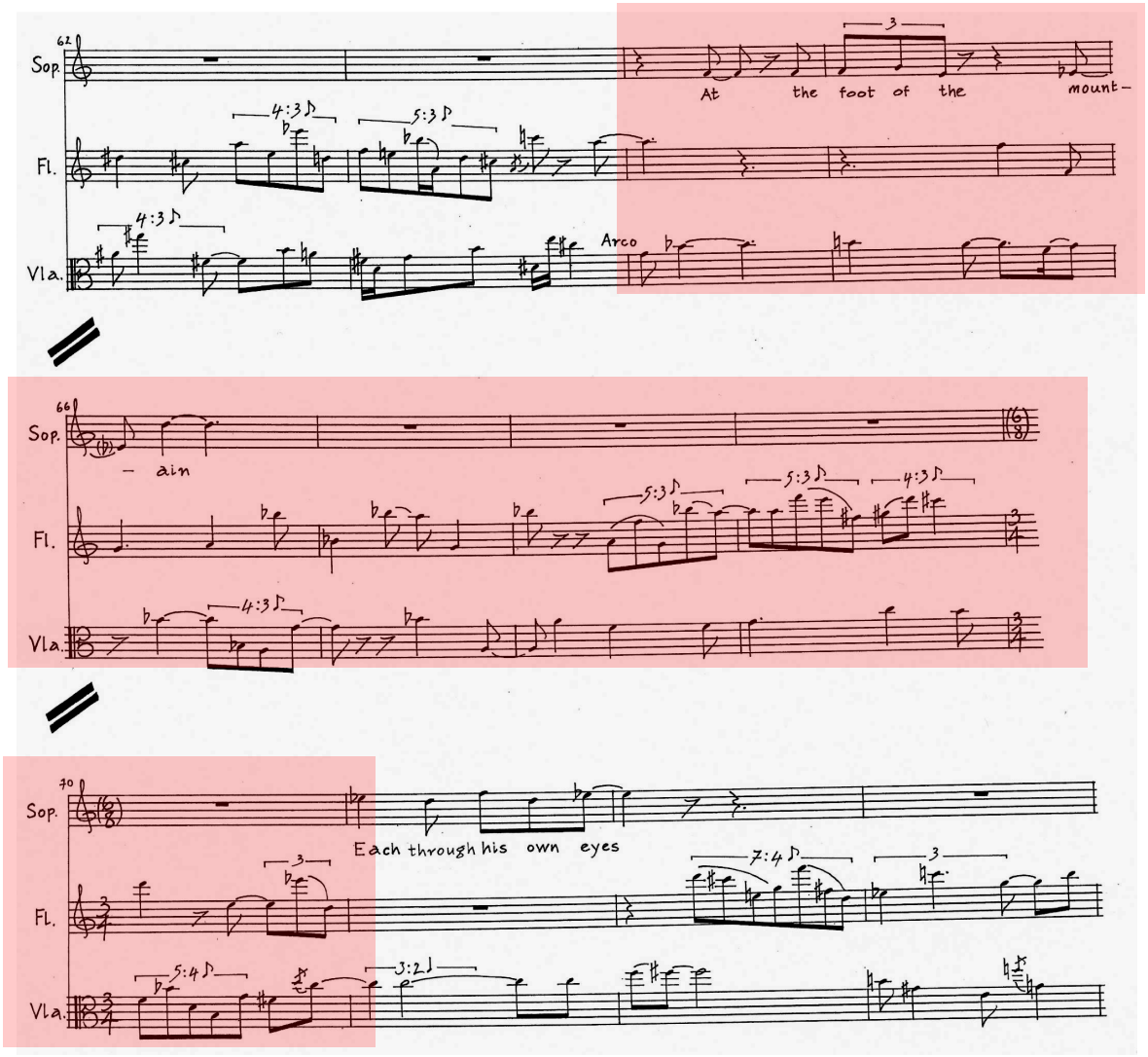
The positioning of these poems in the composition is an important interpretative indicator. The listener is asked to traverse the temporal context in reverse order: from awakening, through walking, to birth. This presents the material in a defamiliarised, counter-additive chronology, placing an emphasis on beginnings rather than endings: the expression, as it were, of a metaphysical mistake. Taken *in toto* the awakening-to-birth motif also expresses the human process of experience. In order to grow, develop and mature, experience is a fundamental requirement. However, through it, our innocence is sacrificed. In a sense, experience both 'makes' and 'breaks' us: as Shibuya indicates in the third stanza of his poem: 'Life is a series of irreparable births'.

The Texts: Structures

The form of each of these verses provides an additional layer of material with which to work. Firstly, from the perspective of the macrostructure, the two shorter poems amalgamate to balance against the longer, third verse. From the point of view of the microstructure, some interesting contrasts occur. Bearing in mind that these verses are in translation, the individuality of their form, nevertheless, is important. The Zen Koan, for example, is structured in the style of a haiku: in this case with a syllabic line form of 8, 7, 5, and 5. This feature has been exploited as a technical device: presented in a compound duple metre, each phase of the line follows this numerical sequence, with

eight bars of music given to the first line, seven to the second and five each for the third and fourth lines of the stanza (Ex. 9.1).

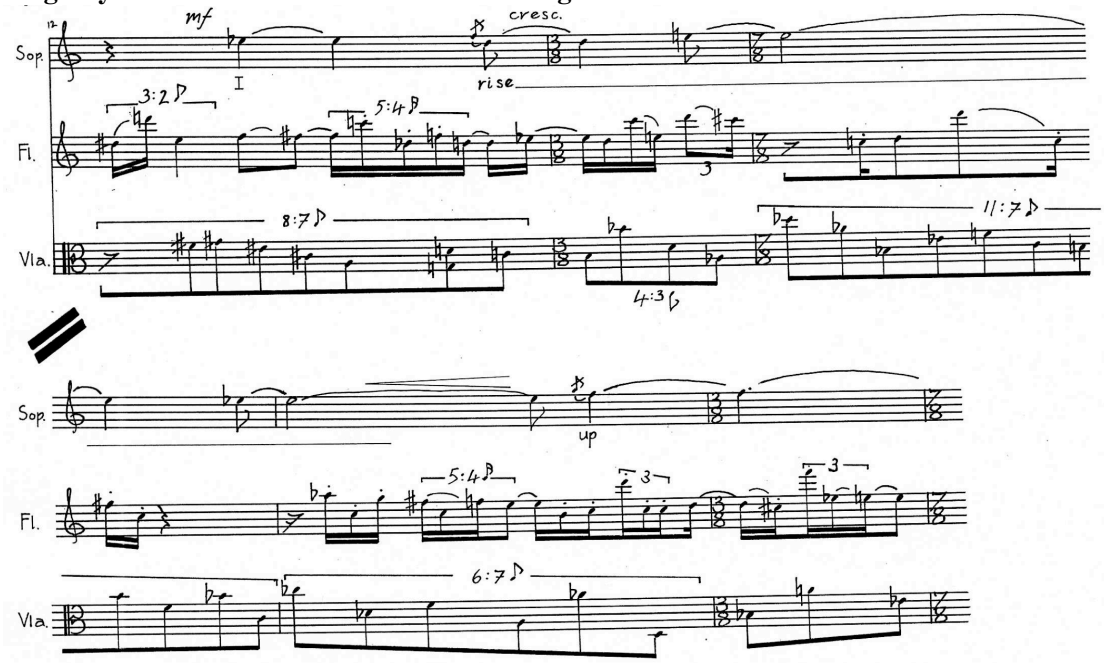
Example 9.1
***'Each Through His Own Eyes'* bb. 62–69. Koan 'Walking', second line, seven-syllable line structure reflected in the seven-bar section between lines.**



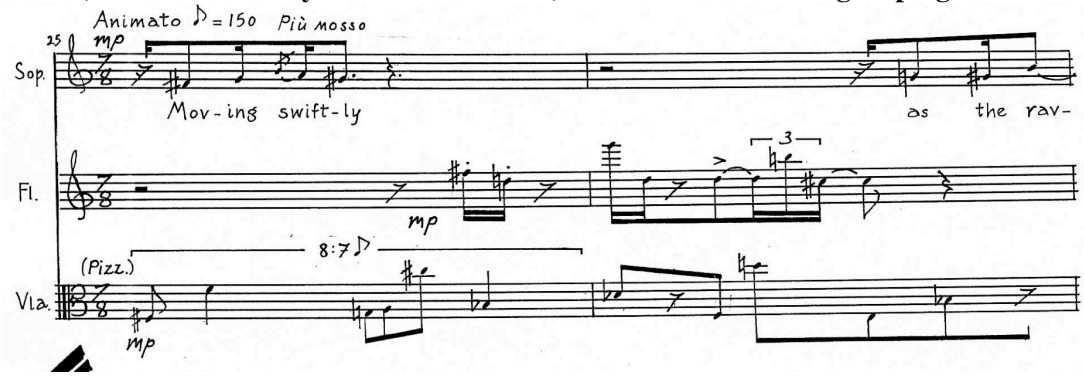
In *Morning Prayer* there are some interesting contrasts in syllabic structure, which reflect and express the content of the text itself. The first and third lines of the first stanza are constructed entirely from single-syllable words: (line 1) *I rise up from rest* (line 3) *I rise up to meet the day*. They proffer a somewhat sober and pragmatic quality reflective of the acts they portray. The second line — *Moving swiftly as the raven's wing* — however, with increased syllabic and consonant content, creates a quicker

momentum and lends a greater urgency to the line. These are expressed mimetically rather than structurally in the music. The first and third lines are drawn into longer, vowel-sustained durations. When the second line appears there is a corresponding increase in tempo, but the defining element is in the shorter, more compressed, consonant note groupings (Ex. 9.2 a–b). Interestingly, the last phrase of *Morning Prayer* and the first of *Walking* are linked phonetically by the vowel sound 'aw…'—'whitening dawn' leads to: 'Walking'. This creates a neat, cohesive unit in the conjunction between the two.

Example 9.2a
***'Each Through His Own Eyes'* bb. 12–16. 'I rise up (from rest)'. First stanza, line one. Single syllable text drawn into slower-moving durations**

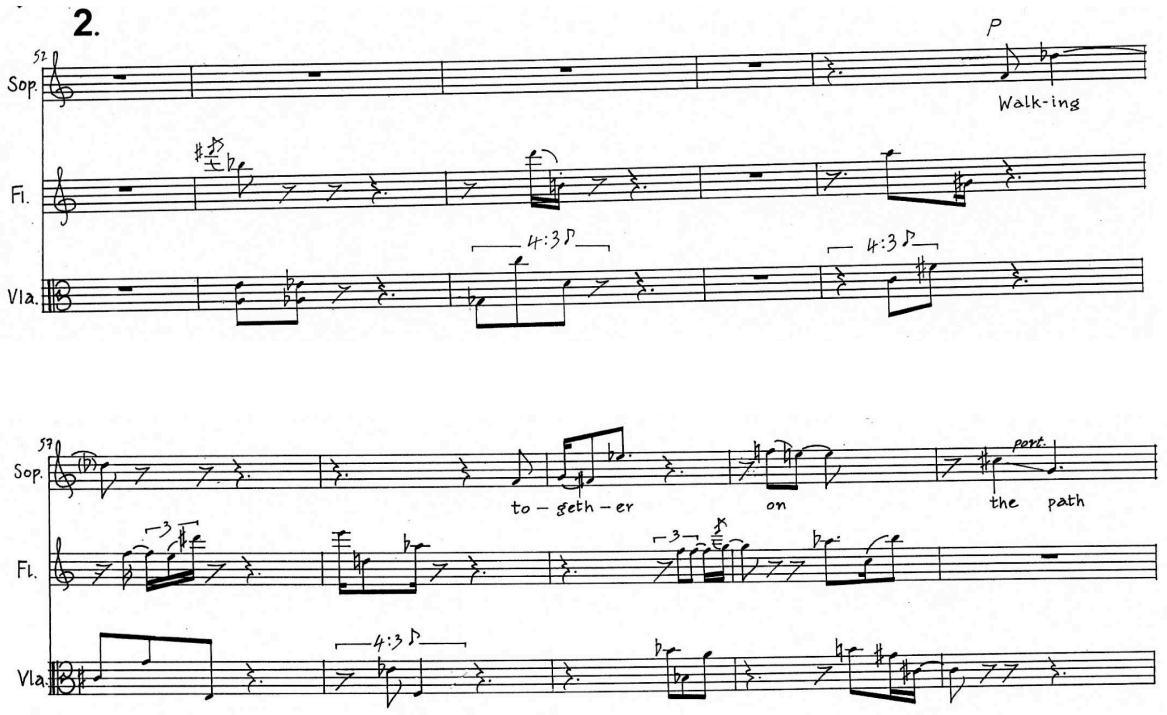


Example 9.2b
***'Each Through His Own Eyes'* bb. 25–26. 'Moving swiftly as the Rav(en's wing)'. First stanza, line two. Multi-syllable text in faster, more condensed note groupings.**



In the main, the syntactical and grammatical structure of the text is preserved throughout these settings. There are some places, however, where a more fragmented treatment has been applied, again, as a means of reflecting content. *Walking*, for example, is divided into separate verbal and instrumental phrases. The syntax is fragmented into individual 'thought objects', reflective of haiku style, and the instrumental interjections between each become the 'footfalls', separating out each step of the process (Ex. 9.3)

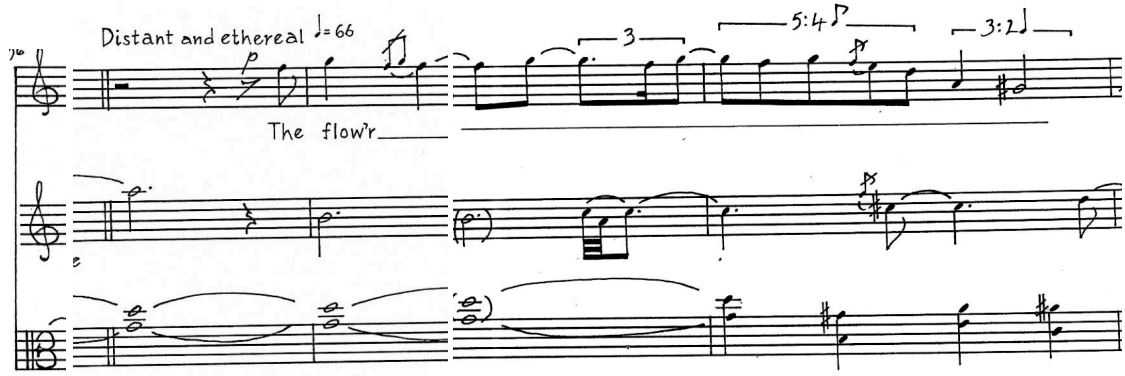
Example 9.3
***'Each Through His Own Eyes'* bb. 52–61. 'Walking'. The text is syntactically fragmented, with instrumental interjections giving expression to the notion of 'footfalls'**



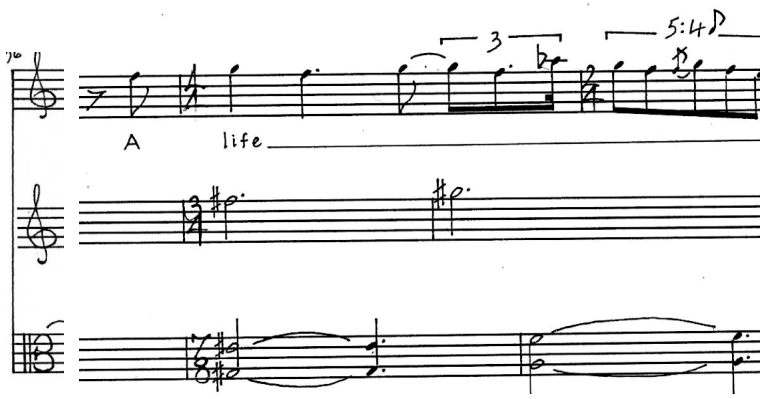
Textual rhythm is also largely maintained, but there are some contraventions through melismatic prolongation. The 'Rise' (up from rest) in the opening verse, for instance, is extended into an ascending line, indicative, not only of the rising idea itself (rather banal as a mimetic device) but the unfolding durational process of that idea (see Ex. 9.2a above). And, again, the melismatic treatment of the opening 'flower' (Ex. 9.4) in *A Birth* (bb. 198–199) gives force to the intricate and decorative structure of that object:

an idea also linked to by association to ‘a life’ in the following line (bb. 204–206 Ex. 9.5).

Example 9.4
***‘Each Through His Own Eyes’* bb. 198–199. ‘A Birth’: Contravening textual rhythm in a mimetic expression of the intricacy of the ‘flower’.**



Example 9.5
***‘Each Through His Own Eyes’* bb. 204–206. ‘A Birth’: musical association linking the ideas of ‘flower’ and ‘life’ through a correlation of melismatic treatments.**

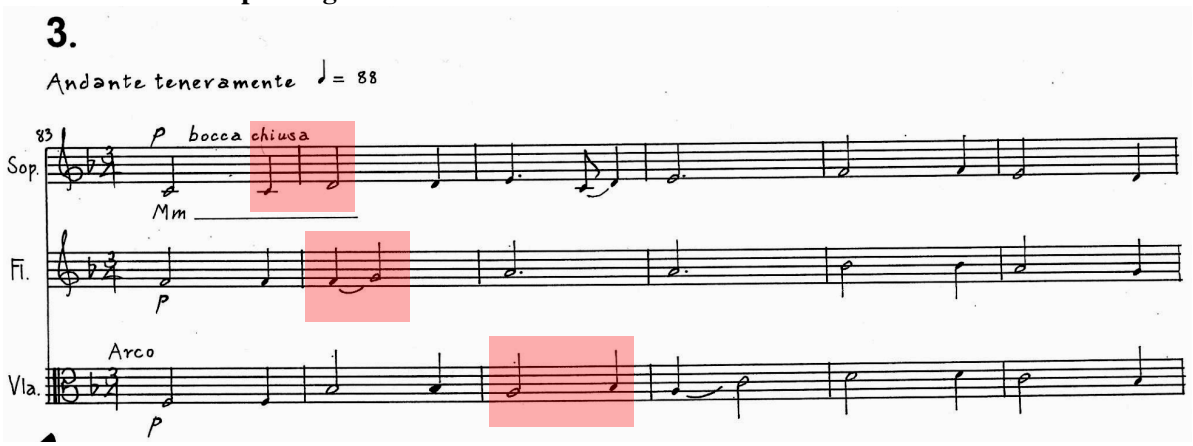


Musical Material

The music and the text are set as a pair of parallel narratives; the vocal line being dropped into, or ‘draped’ over, its underlying accompaniment rather than developed in close association with it. In this sense, it is a dialogue rather than a setting. A strong sense of cohesion is evident, nevertheless, as they are both derived from the same underlying material. As a demonstration of how a single source may be revisited and

reformulated to create new work, associations are established here by means of the same body of conductus material that was used in *A Rehearsal for Extinct Polyphonies* (see chapter six, pg. 114). It permeates the whole composition, yet appears only explicitly and in full between the settings of the second and third poems (Ex. 9.6). The first stanza of *A Birth* has a three-line form that stands apart from its remaining five-line stanzas. In effect it acts as a prelude or introductory statement in relation to the rest of the poem. The conductus material highlights and emphasises this, itself acting both as an interlude in the context of the whole piece and a prelude to that poem.

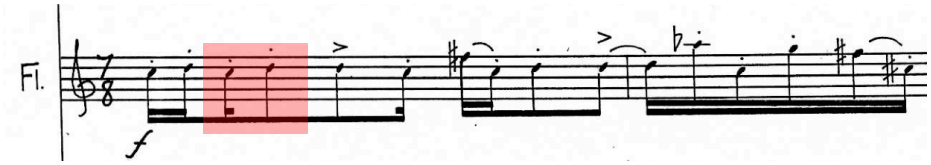
Example 9.6
***'Each Through His Own Eyes'* bb. 83–88. Interlude between verses 2 and 3. This material is used as an underpinning for the whole work.**



This material is implied in the first two settings, forming a background to the vocal line. However, by processing and transforming the original material its presence in other parts of the work is made more subliminal: evident but never fully realised. A few instances will suffice to demonstrate this unifying device. The very opening of the work, for example, takes its basic melodic contour from the stepwise characteristics apparent in each voice — the ascending units c–d; f–g; a–b♭ (see Ex. 9.6). Here it is masked by octave displacements and a fractured texture (Ex. 9.7a), but is more audible in a later passage (Ex. 9.7b).

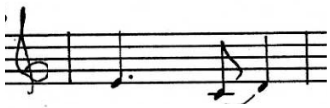
Example 9.7a
***'Each Through His Own Eyes'* b. 1. Flute, opening c–d, reflective of the rising figure from the conductus interlude.**

Example 9.7b
***'Each Through His Own Eyes'* bb. 33–34. Flute, c–d, reflective of the rising figure from the conductus interlude.**

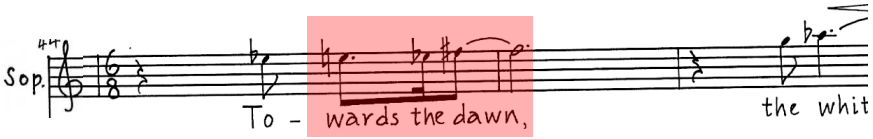


The dotted rhythm in this line (Ex. 9.8a) (durational proportions 3-1-2, or permutation of it) is a characteristic featured that is exploited in various guises in other parts of the work: seen in the semiquaver-to-quaver movement in the previous example and in the vocal line below (Ex. 9.8b)

Example 9.8a
***'Each Through His Own Eyes'* b. 85. Soprano, conductus interlude material, dotted**



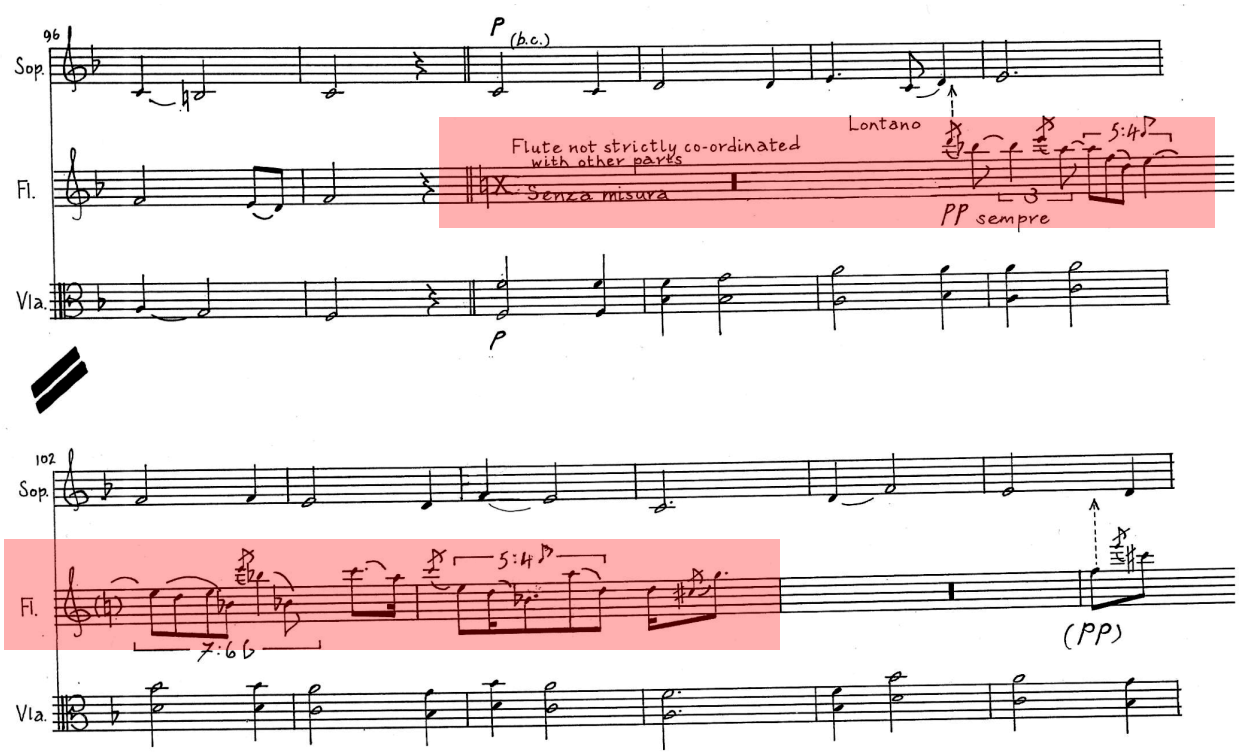
Example 9.8b
***'Each Through His Own Eyes'*. 'Morning Prayer' bb. 45–46. Use of dotted feature.**



The principle of overlay employed in the placing of the vocal line is also used with other types of material. From bar 97, for example, during the third iteration of the conductus material, a Koto-like melodic fragment on the flute is 'dropped' into the texture, which sounds like a separate event, appearing distantly as if through an 'open window' (Ex. 9.9). This juxtapositional device creates an unresolved duality and is

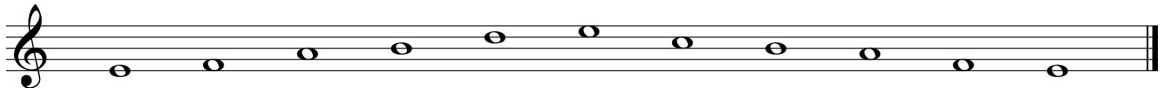
reflective of the notion of polarity of consciousness characteristic of Japanese Zen verse: 'Each Through His Own Eyes'.

Example 9.9
***'Each Through His Own Eyes'* bb. 97 ff. Koto-like flute melody dropped into the texture.**



The line is based on the five-note form of the Japanese *gegaku in* scale (Ex. 9.10), which contains the characteristic interval of the major third between the 2nd and 3rd degrees in both ascending and descending order (Adriaansz, 1973, p. 33).

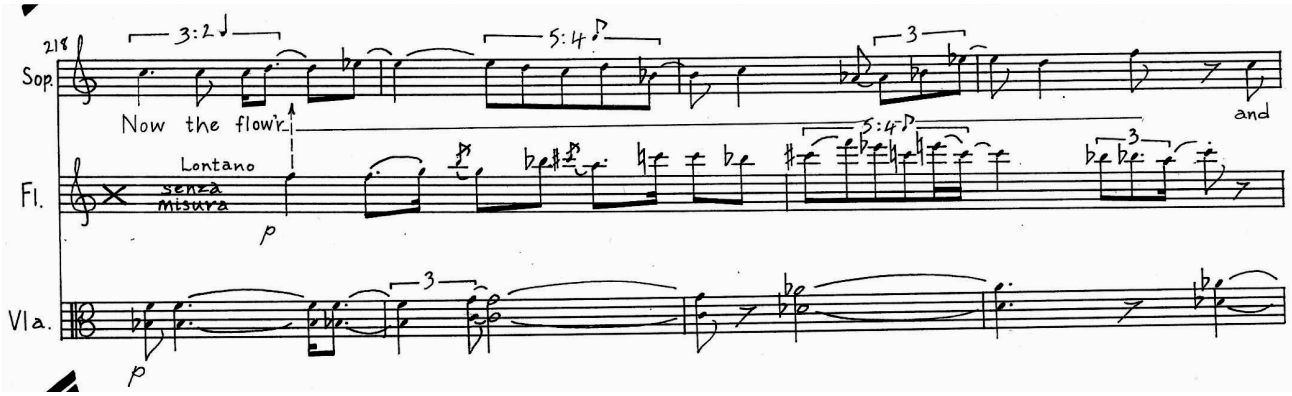
Example 9.10
Japanese *gegaku in* scale.



Although this may appear to act as a cultural marker, it is used simply as another resource, and no attempt is made to imitate or reproduce specific Koto musical content. This technique is used again towards the end of *A Birth* (bb. 218–221), but in this

instance it plays a more active role, presenting an independent 'commentary' on the vocal line (Ex. 9.11).

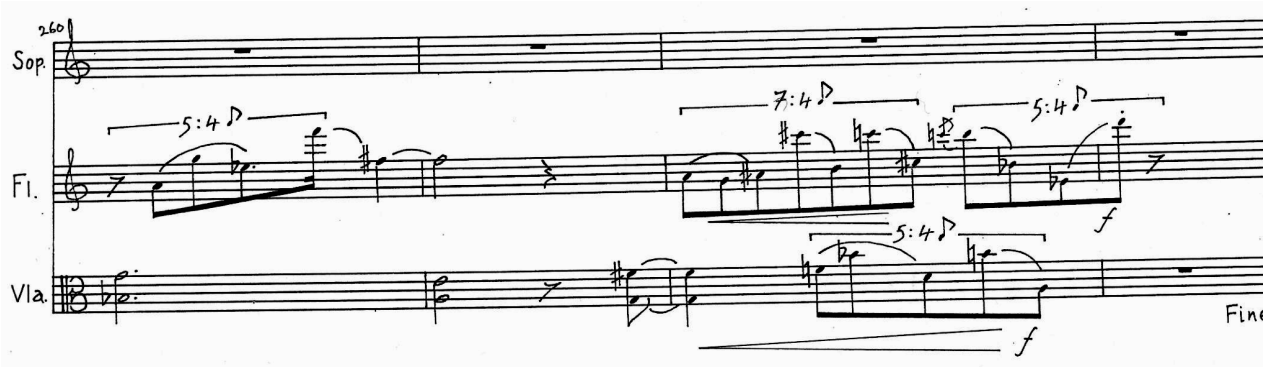
Example 9.11
***'Each Through His Own Eyes'* bb. 218–221. 'A Birth'. Flute line 'dropped' into the texture gives a 'commentary' on the vocal line.**



In both instances, the flute material is designed to synchronise only approximately with the voice and viola, which enhances the independence of the gesture.

As is the case with several of the compositions in this portfolio, the ending of this piece is also inconclusive. Indeed, the rhythm begins to accelerate in a way that suggests the music will continue after the final bar (Ex. 9.12).

Example 9.12
***'Each Through His Own Eyes'* Final bars of 'A Birth' 260–263. Rhythmic acceleration towards the end of the piece.**



Conclusion

The portfolio of eight original works constitutes the main investment of knowledge to the compositional research and performance repertoire. In the context of theory, although these pieces are clearly informed by an eclectic range of ideas and influences, technical and aesthetic consistencies connect and unify them. Shklovsky's theory of defamiliarisation, in particular, is explicitly invoked and linked to compositional aesthetic objectives, and it is tested in different ways throughout the collection of pieces. Applying several technical procedures — one of which is the principle of flexibility in exactitude, which, itself, draws on notions of the open work for its theoretical underpinnings — a fluidity of performance possibilities is made available within precisely delimited and confined parameters. The *Biomechanical Studies,* for example, provide an opportunity to explore texture, the rate at which material is introduced into that texture and the degree of coordination between selected bits of material in a way that cannot be determined or predicted from one performance to the next. *Desire Lines* offers the performer a choice of routes through the composition and a stake in determining the final character of the work through the selection of material that will appear in the final performance. And, in large sections of *Tilting Martha* and the *Dance Suite*, time-space notations and the insertion of mobiles, again, provide elements of flexible response and an opportunity to explore variations in the compositional details with each of its iterations. In all of these cases a substantial degree of defamiliarisation is maintained as each experience of the work will be, to some degree, different. Connections are also made with Dewey's principle that it is by increasing rather than reducing levels of problematisation that real aesthetic purpose is achieved in the creative sphere. All of this is achieved, nonetheless, with a high level of exactitude in the design of the structure and the material. A set of parametric tables has

been devised, designed as a possible aid in the compositional process. They offer a brief analysis of permutational variables available for each musical parameter and a description of how these might result in practice (see Appendix 1).

Further contributions to the research field are achieved through an exploration of the principle of intertextuality, which, as has been argued, plays a fundamental role in stimulating new material and developing new musical language and vocabulary. This recognises and advances the understanding that composition is located within a wider field of activity, and the pieces in the portfolio draw both implicitly and explicitly on a wide scope of materials from across the arts and other disciplines. It develops a compositional philosophy that challenges the characterisation of advancement in the field in terms of an Hegelian, dialectical process — suggested by Schoenberg, Adorno and Boulez among others — or the dichotomy between a European avant-garde and American/English experimental outlook, posited by Michael Nyman in 1973 (1999, pp. 1-2) that for a time hardened into received wisdom. In *Ariach all Gabbe Levena*, *A Rehearsal for Extinct Polyphonies*, and '*Each Through His Own Eyes*' materials are extracted from different sources and transformed into new and original ideas and forms of expression that give, in Klee's encouraging words, new 'outings, which let you have a new point of view for once as well as a change of air' (1920, p. 5). The musical past is a treasure trove: a rich historical vein of material that should not be discarded nor ignored. A more convincing explanation for the development of musical language, form and technique, evokes a more open system of diversity and individual interaction, where the composer is in a position to use a multiplicity of technical means to secure effective compositional ends.

APPENDIX 1

TABLE OF PARAMETRIC FLEXIBILITY
Scale of Flexible Values and Permutations

[Where 5 = Most flexible →1 = Least flexible]

1. PITCH / TESSITURA

5	4	3	2	1
Complete freedom of choice of pitch elements	Freedom of choice of pitch elements. But, control maintained over tessitura	Pitches given, but freedom of choice in the performed ordering	Given pitches to be played in stipulated order, but freedom of choice of tessitura	Play pitches in exact order given, in exact tessitura given.
'Play any note/ notes, in any possible register'	'play any note in this register'	'play notes from this set'	'play these notes in any register'	'play the score exactly as written!'

2. TIME: PULSE/ TEMPO/ RHYTHM

[assumption 1: pulse is more fundamental than tempo]
[assumption 2: tempo is more fundamental than rhythm]

5	4	3	2	1
Tempo – free Pulse – free Durations – free	Tempo – free Pulse – free Durations – controlled	Tempo – free Pulse – controlled Durations – controlled	Tempo – controlled Pulse – free Durations – free	Tempo – controlled Pulse – controlled Durations – controlled
'Play a note/ notes in any time, at any speed, and for any duration'	'Play specific rhythm, but at any speed and in any pulse' [Implication for placement of accents]	'Play this rhythm in this pulse, but at any speed'	'Play any rhythm, but keep the bars at this speed'	'play the score exactly as written!'

3. FORM & STRUCTURE:
Definitions:
Forms = macro organisation
Structure = micro organisation

5	4	3	2	1
Complete freedom of choice in all material designations and macro durations	Complete freedom of choice in all material designations, but macro durations are given	Complete freedom of choice in micro durations and attack, but number of voices, pitches and macro durations given	Complete freedom of choice in order of material designations, but all material designations and macro durations given	Play all material designations as given, in precise order given, and in precise durations given
'any number of players play any material of your choice, for any length of time' *[effectively negates forms and structures]*	'any number of players play any material of your choice, but for this length of time'	'a specific number of performers on any instruments play the following pitches in any rhythm, with any form of attack and articulation, but for this length of time' *[e.g. mobiles 1]*	'a specific number of performers on these instruments to play the following material for this specific duration, but in any order' *[e.g. mobiles 2]*	'play the score exactly as written!'

Assumptions:
Forms and structures may be delineated singly or by a combination of material designations:
Pitch organisation – pitch centres; *gestalten*
Temporal organisation – changes in tempo, speed, pulse, durations
Timbre – changes in instrumentation, register, articulations (e.g. legato → staccato)
Texture – changes in number and complexity of voices

4. TEXTURE:
Based on a combination of the following:

- **time elements**
- **registral elements**
- **number of voices [assumption: at least two voices needed to establish texture?]**

5	4	3	2	1
Complete freedom of choice in all time elements, number of voices and resister	Complete freedom of choice in all time elements, and number of voice elements, but register is controlled	Complete freedom of choice in number of voices, but time elements and registral elements controlled	Complete freedom of choice in all time elements, but voice elements and registral elements controlled	Complete control over all time elements, voice elements and resister
'play any note/ notes in any time, for any duration or set of durations, for any number and combination of performers, and in any possible register' *[caveat: textural indeterminacy is restricted by physical properties of instruments used]*	'play any note/ notes in any time, for any duration or set of durations, for any number and combination of performers, but in these specific registers'	'play any note/ notes for any number and combination of performers, but for this specific duration or set of durations, and in these specific registers'	'play any note/ notes in any time, for any duration or set of durations, but for this number of performers, and in these specific registers'	'play the score precisely as written!'

5. TIMBRE:
Delineations:

- **Macro-timbral elements: Instrumentation and environment**
- **Micro-timbral elements: Tone production techniques on individual instruments**
  - *by performer, use of props etc.*
  - *electronically*

6	5	4	3	2	1
Complete freedom of choice in number and type of instruments used, in tone-production techniques, and performed in any chosen location	Freedom of choice in number and type of instruments used, in tone-production techniques, but performance location controlled	Freedom of choice in number and type of instruments used, but control over tone-production techniques, and location	Freedom of choice in number of instruments used, but control over species of instruments, tone-production techniques, and location	Specific instrumentation given, freedom of choice in tone-production techniques used.	Specific instrumentation, tone-production techniques and location given
'play on any instrument or group of instruments in any location using any form of tone production, articulation etc.' *[caveat: limitations of physical properties of instruments]*	'play on any instrument or group of instruments using any form of tone production, articulation etc., but in this specific location'	'play on any instrument or group of instruments using these specific techniques and articulations, and in this specific location'	'any number of performers to play on this specific group of instruments using these specific techniques and articulations, and in this specific location'	'play on these instruments, but choose your own methods of tone production'	'play all timbral parameters exactly as outlined in the score'

6. DYNAMICS AND INTENSITIES:
Memorandum of understanding:
Dynamics = specific indications of volume etc. – *e.g.* ***ff, pp*** *etc.*
Intensities = general indications of mood etc. – *e.g.* ***cresc., dim., allargando*** *etc.*

6	5	4	3	2	1
Complete freedom of choice in use of dynamics and intensities	Freedom of choice in use of dynamics in some parts of the composition, control maintained over those at other points. Freedom in general mood and intensity	Dynamics given, but freedom over order and placement. Freedom in general mood and intensity of the music.	Freedom in general mood and intensity of the music. But control maintained over dynamics throughout.	Freedom in general mood and intensity of the music in *some* areas of the composition, but control maintained at other points. Control maintained over dynamics throughout.	Control maintained over all dynamics and intensities throughout
'play the music at a volume of your choice, and as your mood dictates'	'play the music at a volume of your choice at *this* point, as your mood dictates. But at *this* point play dynamics as indicated'	'play the music with these dynamics, but you choose where they go'	'play the music as you feel generally, but follow all of the dynamics as indicated'	'play the music as you feel at *some* points, but follow all dynamic and intensity indications where they appear'	'follow all dynamics and indications of mood throughout, exactly as outlined in the score'

7. ARTICULATION AND PHRASING:

5	4	3	1
Complete freedom of choice in use of articulation and phrasing	Freedom of choice in use of articulation in some parts of the composition, control maintained over those at other points.	Articulations given, but freedom of choice in order and placement	Control maintained over all articulation and phrasing throughout
'play the music with any chosen articulation and phrasing throughout'	'play the music with articulation and phrasing of your choice at *this* point. But at *this* point play with articulation and phrasing as indicated'	'play the music with the articulation suggested, but you choose which notes take which articulation'	'follow all articulation and phrasing indications throughout, exactly as outlined in the score'

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